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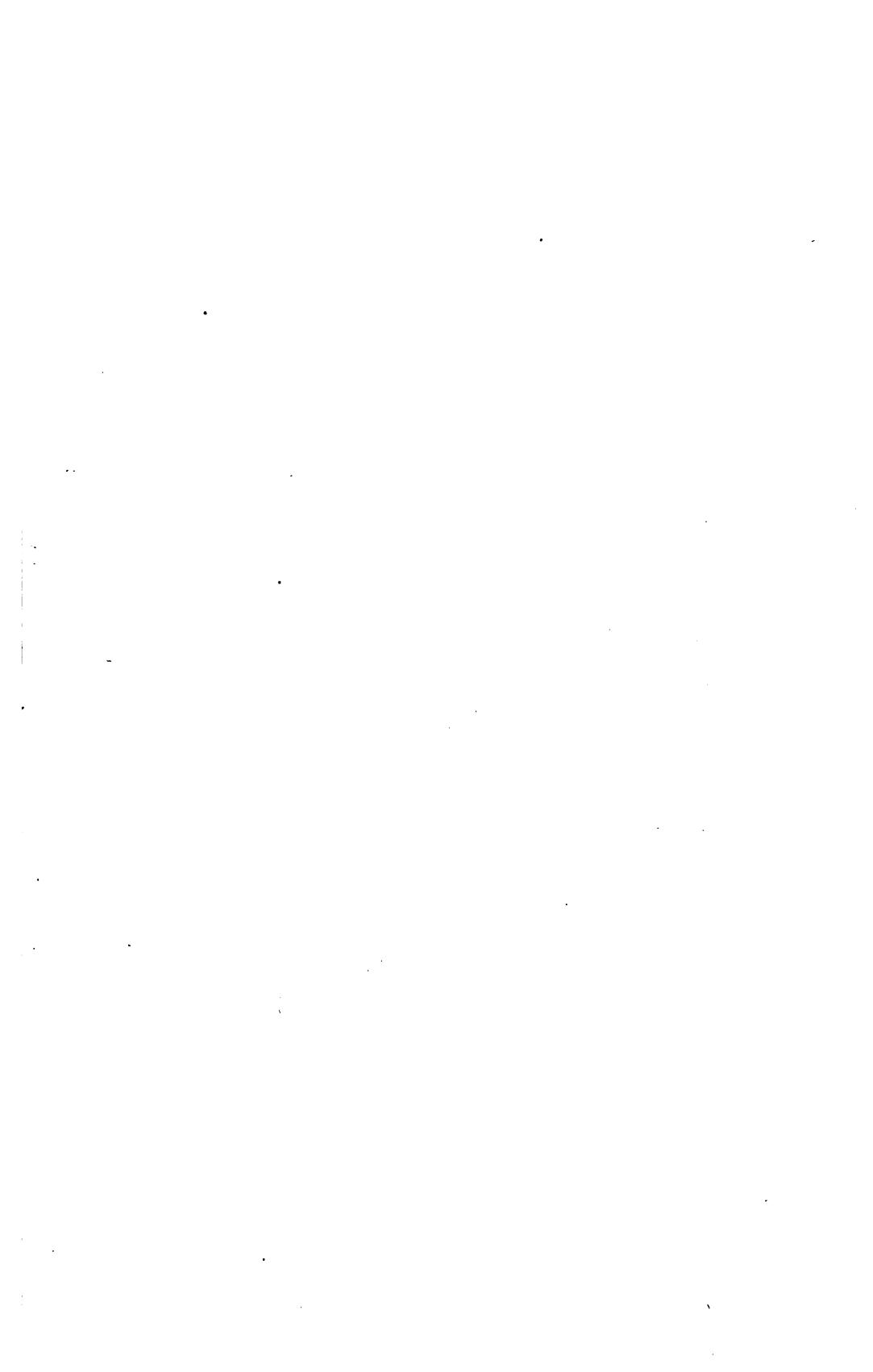
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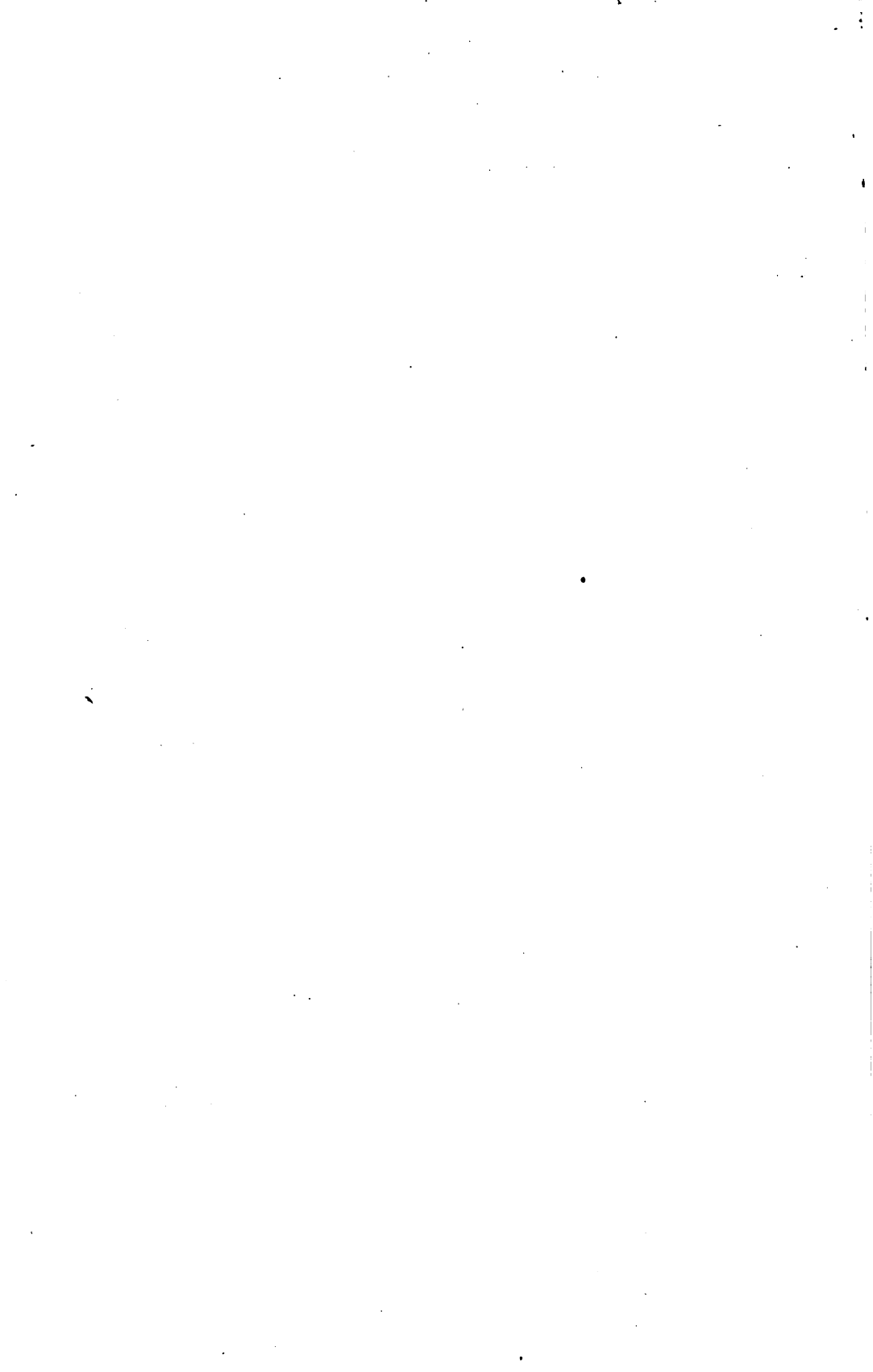
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ANNUAL REPORTS, WAR DEPARTMENT
FISCAL YEAR ENDED JUNE 30, 1915

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REPORT OF THE

PHILIPPINE COMMISSION

TO THE SECRETARY OF WAR

JULY 1, 1913, TO DECEMBER 31, 1914

(IN ONE PART)

SPECIAL NOTICE.

—♦—

THE matter contained herein comprises the entire Philippine Commission Report for the period from July 1, 1913, to December 31, 1914, as printed in the United States.

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REPORT OF THE PHILIPPINE COMMISSION.

ANNUAL REPORT OF THE PHILIPPINE COMMISSION TO THE SECRETARY OF WAR.

JULY 1, 1913, TO DECEMBER 31, 1914.

MANILA, *July 23, 1915.*

SIR: The Philippine Commission has the honor to submit its fifteenth annual report, covering the fiscal year 1914 (the period from July 1 to December 31, 1913), and the new fiscal year 1914 (the period from January 1 to December 31, 1914).

On December 19, 1913, the Legislature enacted Act No. 2305, making the fiscal year uniform for all branches of the government and coincident with the calendar year. Formerly the fiscal year for the insular government ended on June 30 of each calendar year.

Attention is called to the fact that the part of this report which refers to legislation also embraces part of the fiscal year 1915, for the reason that the Legislature was in session on December 31, 1914, and did not adjourn until February 5, 1915; consequently data with respect to the work of the Legislature, to be of any value, must cover the entire period of session. If that part of this report which refers to legislative matters were closed as of December 31, 1914, it would show no more than the status of bills on that date, which, in many cases, would be changed on the following legislative day.

LEGISLATION.

EXCLUSIVE LEGISLATIVE JURISDICTION OF THE COMMISSION.

Acting within its exclusive legislative jurisdiction over all that part of the Philippine Islands inhabited by Moros or other non-Christian tribes, the Commission enacted during the period covered by this report 48 acts, of which the following are perhaps the most important:

No. 2280. An act appropriating the sum of ₱50,000 for the establishment, in that part of the Philippine Islands inhabited by Moros or other non-Christian tribes, of colonies and plantations for the cultivation of rice and other food cereals, for the better distribution of the population, and for other purposes.

No. 2287. An act prohibiting the sale of intoxicating liquors, with certain exceptions, in the Mountain Province, Nueva Vizcaya and Agusan, except in certain districts.

No. 2309. An act changing the name of the Moro Province to the department of Mindanao and Sulu, placing the province of Agusan under the jurisdiction and control of the governor of the said department, and for other purposes.

No. 2396. An act making extensive to the department of Mindanao and Sulu the provisions of the provincial government act and other acts relative to the cedula tax and increased cedula tax, under certain conditions, and repealing

act No. 306 of the Legislative Council of said department and all other acts inconsistent herewith.

No. 2399. An act extending the provisions of Act 2300 to the territory inhabited by Moros or other non-Christian tribes and penalizing the taking away of any uncivilized person or member of any non-Christian tribe for the purpose of exploiting or exhibiting such person as a spectacle, and for other purposes.

No. 2402. An act making applicable to that part of the Philippine Islands inhabited by Moros or other non-Christian tribes Acts Nos. 2339 and 2347 of the Philippine Legislature.

No. 2403. An act making applicable to that part of the Philippine Islands inhabited by Moros or other non-Christian tribes certain acts of the Philippine Legislature.

No. 2404. An act to aid in the harmonizing of the non-Christian and the Christian inhabitants of the Philippine Islands, creating the position of delegate of the secretary of the interior for the non-Christian people and making appropriation therefor.

No. 2406. An act appropriating ₱35,000 to aid the non-Christian people of the Mountain Province and to promote their union with the Christian people of the Philippines.

No. 2408. An act providing a temporary form of government for the territory known as the department of Mindanao and Sulu, making applicable thereto, with certain exceptions, the provisions of general laws now in force in the Philippine Islands, and for other purposes.

No. 2409. An act extending to the department of Mindanao and Sulu the provisions of general laws providing for the organization, jurisdiction, procedure, and fees of justice of the peace courts, with certain exceptions, and for other purposes.

No. 2417. An act making applicable to the department of Mindanao and Sulu all laws relating to the bureau of agriculture now in force in provinces and municipalities organized under Acts Nos. 83 and 82, and their amendments, and for other purposes.

No. 2418. An act extending to the Mountain Province the provisions of general laws providing for the organization, jurisdiction, procedure, and fees of justice of the peace courts, with certain exceptions, and for other purposes.

No. 2429. An act providing a procedure for the first election of third members of provincial boards in the various provinces of the department of Mindanao and Sulu, and authorizing the governor of the department to fix the date for the holding of the first municipal elections therein, and for other purposes.

No. 2441. An act providing that the property tax in the province of Nueva Vizcaya shall be assessed against real property only and that the rate of levy shall be increased from one-half to seven-eighths of 1 per cent, and for other purposes.

No. 2513. An act making appropriations for the maintenance of a hospital ship for use in the department of Mindanao and Sulu, and for other purposes.

AS A CHAMBER OF THE PHILIPPINE LEGISLATURE.

During the period covered by this report, there were held two regular sessions and one special session of the Third Philippine Legislature; namely, the second session, which convened at Manila on October 16, 1913, and adjourned on February 3, 1914; the special session of 1914, which convened at Manila on February 6, 1914, pursuant to proclamation by the Governor General, and adjourned on February 28, 1914; and the third sessions, which convened at Manila on October 16, 1914, and adjourned on February 5, 1915.

During these three sessions there were introduced in the Commission, as a chamber of the Legislature, 174 bills, of which 108 were passed by the Commission and sent to the Assembly for concurrence, of which 83 were enacted. One of the first resolutions adopted by the new Philippine Commission was that providing that all of its sessions except those necessarily executive should be open to the public and to the press. The Commission received from the

Assembly for concurrence 290 bills, which had been passed by the Assembly, of which 106 were enacted. The total number of bills enacted by the Legislature during this period is 189. Of these acts the following are perhaps the most important:

No. 2288. An act appropriating the sum of ₱175,000 Philippine currency for public schools.

No. 2300. An act confirming existing legislation prohibiting slavery, involuntary servitude, and peonage in the Philippine Islands, subject to modifications as provided in sections 268, 269, 270, and 271 of the act of the Congress of the United States approved March 4, 1909, entitled "An act to codify, revise, and amend the penal laws of the United States," and adopting measures for preventing violations of said laws.

No. 2305. An act to make the fiscal year uniform for all branches of the government and coincident with the calendar year, and to fix the time for making annual reports for officers of the different branches of the government, and for other purposes.

No. 2307. An act creating a board of public utility commissioners and prescribing its duties and powers, and for other purposes.

No. 2308. An act abolishing the bureau of navigation and transferring to other bureaus certain property, equipment, functions, and duties hitherto appertaining thereto; providing for the sale of certain property, authorizing the sale or lease of the marine railway and repair shop, and repealing certain provisions of law relating to the bureau of navigation.

No. 2333. An act relative to untrue, deceptive, and misleading advertisements.

No. 2339. An act revising and consolidating the laws relative to internal revenue.

No. 2342. An act regulating the labeling, sale, and advertising of patent and proprietary medicines, fraudulent therapeutic appliances and devices, and for the protection of the people of the Philippine Islands against the exploitation of such articles.

No. 2347. An act to provide for the reorganization of the courts of first instance and of the court of land registration.

No. 2352. An act providing for the taking of a census of the Philippine Islands, making an appropriation therefor, and for other purposes.

No. 2360. An act providing for the sale of the land known as the San Lazaro Estate, in the city of Manila.

No. 2380. An act providing for the inspection, grading, and baling of abaca (Manila hemp), maguey (cantala), sisal, and other fibers.

No. 2427. An act revising the insurance laws and regulating insurance business in the Philippine Islands.

No. 2432. An act amending Act No. 2339, the internal-revenue law of 1914, by imposing increased and additional taxes, and for other purposes.

No. 2436. An act creating the fidelity fund and repealing Act No. 1739, as amended.

No. 2451. An act amending paragraph 8 of section 12 of Act No. 1148, by providing that all timber cut in public forests shall be measured in the round, and specifically authorizing a reasonable deduction for certain natural defects, except as herein otherwise provided.

No. 2462. An act providing new regulations for the examination of dentists and the practice of dentistry in the Philippine Islands, and for other purposes.

No. 2465. An act to amend Act No. 2083, as amended, entitled "An act to fix the amount of the gold-standard fund, created under Act No. 938, authorizing the deposit of the excess of the amount so fixed to the credit of the general fund of the treasury and authorizing the investment of a portion of the said gold-standard fund" so as to authorize additional investment.

No. 2468. An act reorganizing the Philippine health service, and for other purposes.

No. 2473. An act to facilitate to laborers the exercise of their rights in all cases falling under the provisions of Act No. 1874.

No. 2479. An act creating a central sugar board for the purpose of promoting and assisting in the establishment of sugar centrals in the Philippine Islands, providing for the repayment of the funds advanced by the government in connection with sugar centrals, and for other purposes.

No. 2486. An act fixing a tax upon every person or entity engaged in recruiting or contracting laborers in the Philippines, and amending subsection (a) of section 53 of Act No. 2339.

No. 2490. An act to create a board of dental hygiene for the purpose of establishing and maintaining free dental clinics for children matriculated in public and private schools of primary instruction in the Philippine Islands, and for other purposes.

No. 2493. An act to amend Act No. 310, regulating the practice in the Philippine Islands of medicine and surgery in all their branches, to repeal section 1 of Act No. 1632 and Act No. 1651, and to provide for the examination and registration of nurses in the Philippine Islands.

No. 2507. An act providing for a board of marine examiners, for the examination and licensing of watch officers and engineers on Philippine vessels in the coastwise trade and for the high seas, license, fees, compensation, and penalties in certain cases, and repealing certain acts relating thereto.

No. 2508. An act regulating the creation and operation of "Rural Agricultural Cooperative Associations," and for other purposes.

No. 2510. An act for the purpose of establishing a public-welfare board for the Philippine Islands, and defining its powers, functions, and duties.

BILLS FAILING OF PASSAGE.

Several bills relating to matters of moment were considered by the Legislature during the period of this report, but failed of passage. Of these the following are perhaps the most important:

ORIGINATED IN THE COMMISSION.

C. B. 119. An act providing for the retirement of superannuated and disabled officers and enlisted men of the Philippine Constabulary, amending Act No. 1638.

C. B. 129. An act to regulate the sale of polished rice and imposing a license tax on dealers in polished rice in the Philippine Islands.

C. B. 157. An act relating to local improvements in the city of Manila, and providing for the levying of special assessments therefor.

C. B. 168. An act to regulate radio communication.

C. B. 225. An act amending Act No. 2098 entitled "An act relating to contracts of personal service and advances thereunder, and providing punishment for certain offences connected therewith," by providing that any person charged with the violation of said act shall be entitled to a trial by jury.

ORIGINATED IN THE ASSEMBLY.

A. B. 461. An act providing for the reimbursement of traveling and subsistence expenses to witnesses in criminal actions.

A. B. 478. An act providing for the adoption of military instruction in the public schools and in the University of the Philippine Islands.

A. B. 588. An act establishing provisions to favor the diffusion and extension of agricultural instruction and demonstrations in the provinces, subprovinces, and municipalities of the Philippine Islands.

A. B. 619. An act regarding public auctions.

A. B. 661. An act to provide for the acquisition and installation, under certain conditions, of machines or apparatus for drying copra, and to appropriate for said purpose the sum of ₱50,000 out of any funds in the insular treasury not otherwise appropriated.

A. B. 667. An act providing for the creation in Manila of a military academy.

A. B. 669. An act to reorganize the provincial boards in the provinces governed by and organized under Act No. 83, as amended.

A. B. 745. An act reorganizing the bureau of agriculture in these Islands.

The acts passed by the Commission and the Legislature during the period covered by this report are numbered 2280 to 2516, inclusive. Certified printed copies of these acts have already been furnished.

It is noteworthy that both houses reached an agreement on the appropriation bills for the fiscal years 1914 and 1915, these acts being Nos. 2319 and 2431, respectively. Act No. 2319 was enacted on January 31, 1914, and was the first appropriation act passed by the Legislature since Act No. 1989, which was enacted on April 19, 1910.

Of the acts passed by the Philippine Commission in its exclusive legislative jurisdiction a brief word of explanation will be sufficient.

Acts numbered 2396, 2399, 2402, 2403, 2417, and 2418 were passed by the Philippine Commission in accordance with the established practice of making applicable to the department of Mindanao and Sulu and the so-called non-Christian provinces acts of the Philippine Legislature, passed by both the Philippine Commission and the Philippine Assembly for the benefit of the regular provinces, acts which are considered by the Commission as being also desirable for the special governments or non-Christian provinces.

Act No. 2280 appropriated the sum of ₱50,000 for the purpose of establishing colonies of Christian peoples in the Moro Province, now the department of Mindanao and Sulu, for the purpose of cultivating rice and other food cereals. There are immense tracts of land in Mindanao which are exceedingly rich agriculturally and to which it is the policy of the government to transfer Filipinos from the overcrowded provinces for the purpose of colonization. This plan has also the benefit of bringing into closer relation and better understanding the Filipinos and their Mohammedan neighbors of the south. The plan, which was inaugurated before the advent of the present administration, has entirely justified itself, and additional colonies have been established, notably, the American colony at Momungan, Mindanao.

Act No. 2287, regulating the sale of intoxicating liquors in certain districts of the Mountain Province, Nueva Vizcaya and Agusan, is for the benefit and protection of the non-Christian inhabitants of those provinces.

Act No. 2309 was enacted, as indicated by its title, for the purpose of changing the name of the former Moro Province to the department of Mindanao and Sulu, in pursuance of the plan more quickly to develop the Mohammedan and pagan inhabitants of the Moro Province and of the province of Agusan in the matter of self-government. By a later act, No. 2408, providing for a temporary form of government for the territory known as the department of Mindanao and Sulu, this plan was still further carried out by dividing the department of Mindanao and Sulu into provinces and making provision for autonomous municipal governments.

The purpose of acts numbered 2404 and 2406 is apparent from their titles as is also the purpose of Act No. 2409.

Act No. 2429 provides machinery for carrying into effect the plans of the Philippine Commission with relation to the department of Mindanao and Sulu already referred to.

Act No. 2513 was passed for the purpose of providing a hospital ship for use in the department of Mindanao and Sulu. Owing to the immense area of the department and the great distances to be covered, the hospital ship, carrying physicians and nurses to give aid to the Mohammedan and pagan residents, will be of incalculable benefit. It might here be said that physicians are being supplied the various provinces of the department of Mindanao and Sulu as rapidly as funds permit.

The purpose of the acts originating or passed by the Philippine Commission as a chamber of the Philippine Legislature are set forth above quite fully in their titles.

Act No. 2305 was necessary for the reason that although the municipal and the provincial fiscal years coincided with the calendar year, the insular fiscal year since the organization of the Philippine government extended from July 1 to June 30. The advantage of having all the fiscal years the same is apparent.

Act No. 2307, creating the board of public utility commissioners, is based on the New Jersey public utility law, and the operation of the board of public utility commissioners has had an excellent effect in the Philippine Islands.

Act No. 2308, abolishing the former bureau of navigation, was passed because of the fact that it was no longer necessary to have a separate bureau for the purpose of performing the functions embraced in the bureau of navigation and as well for the reason that expense of administration of that bureau had for several years been increasing disproportionately for the service rendered. The wisdom of passing this act is shown by the considerable saving effected, with continued and increasing efficiency.

Acts numbered 2333 and 2342 were both passed primarily for the purpose of regulating the sale of proprietary medicines and fraudulent therapeutic appliances and devices in the Philippine Islands, as is shown by their titles.

Act No. 2339 brought into effect the codified laws relative to internal revenue which were prepared by the code committee. By this act the internal-revenue laws to the date of its passage are made easily available, not only for the officials administering the act but as well to merchants and others affected thereby.

Act No. 2347 was passed for the purpose of readjusting some of the judicial districts of the Philippine Islands, a number of which were too large to be handled by one judge, and for the further purpose of providing additional judges, known as auxiliary judges, to care for the increasing public business in the courts in some provinces. An act similar to this had been advocated by the preceding administration and its effect has been excellent. All judges in the service at the time of the passage of this act were reappointed.

Act No. 2352, providing for the taking of a census of the Philippine Islands, made an appropriation of \$25,000 for preliminary work in this connection. The last previous census was taken in 1903 and is admittedly inaccurate, owing to the unusual conditions prevailing at the time of its taking. Inasmuch as not only the apportionment of legislative districts is dependent in the Philippine Islands upon population, but the distribution of internal-revenue tax is also dependent thereon, the importance of such a new census is apparent.

Act No. 2380, providing for the inspection, grading, and baling of Manila hemp and other fibers, is of great importance. Manila hemp was gradually losing its long-established place in the fiber world, owing to the unequal grading of the different export houses in the Philippines. By the present act the government establishes the grades and is responsible for the proper marking of the bales. For the services rendered a small charge is made, not sufficient in any way to increase the price of the hemp, but sufficient to cover the expense to which the government is put.

Act No. 2427 brings into effect in the Philippine Islands the provisions of law covering insurance business which have been found necessary and advisable throughout the United States.

Act No. 2432, amending the internal-revenue law and imposing increased and additional taxes, was primarily for the purpose of securing to the insular government additional revenue required, owing to the falling off of customs receipts due to the disturbances caused by the European war. This act was later approved by an act of the Congress of the United States, which recognized the necessity to the Philippine government of the additional revenues.

Act No. 2451, amending Act No. 1148 by providing that all timber cut in public forests shall be measured in the round and specifically authorizing a reasonable deduction for certain natural defects, was enacted for the purpose of increasing the forest revenue receipts and will take effect July 28, 1915.

Act No. 2468 reorganizes the health service and creates a council of hygiene, whose duties are of an advisory character.

Act No. 2479, creating a central sugar board, is for the purpose of promoting and aiding the establishment of sugar centrals and the necessary machinery and equipment throughout the Philippine Islands by means of governmental aid. By this act the sum of not to exceed ₱2,000,000 is made available for investment by the insular treasurer with the approval of the Governor General for the purposes indicated. The result of this act will be extremely beneficial, inasmuch as there are at present nowhere near the necessary number of centrals for the manufacture of the output of the sugar of the Philippines. As a result, the sugar crop of the Philippines is low grade and is sold at a minimum price after the crops from other parts of the world are disposed of.

Act No. 2486 is for the purpose of regulating the emigration of laborers from the Philippines by labor-recruiting bureaus.

Act No. 2508 not only regulates the creation and operation of rural agricultural cooperative associations but as well provides methods and means for their organization and continuation and for the supervision of their actions.

Act No. 2510 was passed for the purpose of creating a board to coordinate so far as possible the acts of all government agencies and influences interested in public-welfare and social-service work and such private agencies and organizations as receive governmental support for social work, and to secure so far as possible the wise expenditure of all government funds appropriated to charitable and public-welfare purposes. The purpose of the board created by the act is also to promote the organization of private institutions for charitable purposes and to investigate social conditions in the Philippine Islands with a view to relief where necessary.

The condition of trade, commerce, business, statistics, and finances are discussed thoroughly in the reports of the Governor General and of the several secretaries of departments which accompany this report and are not therefore included here.

RECOMMENDATIONS.

It is not believed necessary to make any recommendations for legislation by Congress in view of the fact that the so-called "Jones bill" will probably receive further consideration in the next session of the Congress of the United States.

The Philippine Commission urgently recommends the passage of this proposed act, which provides for the extension of the autonomy of the Filipino people by granting to them greater participation in their government.

It is urged that at the coming session of Congress the Jones bill or a similar act, as it passed the House of Representatives and as favorably reported by the Senate Committee on the Philippines, be enacted. In the opinion of the Philippine Commission, modification of the bill, if any is made, should be in the way of making its provisions even more liberal.

We consider it particularly important that the preamble of the bill substantially as it was passed by the House of Representatives be enacted. We consider such a definite statement of intention necessary in order that a better understanding may be established between both peoples and that stability of business may be established and assured.

The gratitude of the Filipino people for the passage of the Philippine bill through the House of Representatives is set forth in the resolution of both houses of the Philippine Legislature in joint session October 16, 1914.

The personnel of the Philippine Commission on December 31, 1914, was as follows, and no change has been made in the Commission up to the date of this report:

Francis Burton Harrison, Governor General, ex officio President.

Henderson S. Martin, Vice Governor (ex officio Acting President during absence of President) and secretary of public instruction.

Rafael Palma.

Victorino Mapa, secretary of finance and justice.

Jaime C. de Veyra.

Vicente Ilustre.

Vicente Singson Encarnacion.

Clinton L. Riggs, secretary of commerce and police.

Winfred T. Denison, secretary of the interior.

At the date of the adoption of the report Clinton L. Riggs, secretary of commerce and police, is on leave of absence in the United States owing to ill health, and Winfred T. Denison, secretary of the interior, is absent on an inspection trip in the Province of Mindoro.

Very respectfully,

FRANCIS BURTON HARRISON.

HENDERSON S. MARTIN.

RAFAEL PALMA.

VICTORINO MAPA,

V. ILUSTRE.

JAIME C. DE VEYRA.

V. SINGSON ENCARNACION.

To the honorable the SECRETARY OF WAR,
Washington, D. C.

REPORT OF THE GOVERNOR GENERAL.

JULY 1, 1913, TO DECEMBER 31, 1914.

MANILA, *June 20, 1915.*

GENTLEMEN: I have the honor to present to the Philippine Commission the following report of the Governor General for the semi-fiscal year 1914 (July 1 to Dec. 31, 1913) and for the calendar year 1914.

Following the inauguration of Woodrow Wilson as President of the United States and the selection of Lindley M. Garrison as Secretary of War an almost complete change was made in the membership of the Philippine Commission, Commissioner Rafael Palma being the only member of the former Philippine Commission to remain in office. The present Philippine Commission is composed as follows:

Francis Burton Harrison, of New York, appointed Governor General and President of the Commission September 2, 1913 (arrived in the Philippines Oct. 6, 1913). Henderson S. Martin, of Kansas, appointed Vice Governor, secretary of public instruction, and member of the Philippine Commission December 1, 1913 (arrived in the Philippines Jan. 26, 1914). Rafael Palma, of Cavite, appointed member of the Philippine Commission on July 6, 1908. Victorino Mapa, of Capiz, appointed secretary of finance and justice and member of the Philippine Commission October 30, 1913. Jaime C. de Veyra, of Leyte, appointed member of the Philippine Commission October 30, 1913. Vicente Ilustre, of Batangas, appointed member of the Philippine Commission October 30, 1913. Vicente Singson Encarnación, of Ilocos Sur, appointed member of the Philippine Commission on October 30, 1913. Clinton L. Riggs, of Maryland, appointed secretary of commerce and police and member of the Philippine Commission December 1, 1913 (arrived in the Philippines Feb. 23, 1914). Winfred T. Denison, of New York, appointed secretary of the interior and member of the Philippine Commission January 27, 1914 (arrived in the Philippine Islands Mar. 2, 1914).

Thus, in pursuance of his theretofore announced policy, President Wilson nominated and the Senate confirmed a majority of Filipinos upon the Commission. Since the membership of the lower house, the Philippine Assembly, was already composed entirely of elected Filipinos, this placed the majority vote of the Philippine Legislature in the hands of the Filipino people. To anyone familiar with recent legislative history in the Philippines such a course was not only just and merited, but wise. No appropriation bill had been passed for the three fiscal years 1911, 1912, and 1913, owing to the failure of the two houses of the Legislature to agree upon an appropriation for the current expenses of the government. For these three years disbursements were made by the Governor General, act-

ing under the provision of law which authorizes him, whenever the Legislature fails to pass the supply bill, to advise the treasurer to disburse the same amounts appropriated in the last annual appropriation bill. For these three years the appropriation bill which formed a basis for the disbursements made by the advice of the Governor General was that enacted in Baguio at the session of the Philippine Legislature held there in 1910. The provision of the law above mentioned was construed by the then administration to permit the Governor General in his discretion to direct the treasurer of the Philippine Islands to vary the items and amounts of the "last annual appropriation bill," and thus the Governor General exercised the most important function of the Legislature by edict or "letter of advice." It had been the contention of the Philippine Assembly and certain of the officers of the executive branch if the government that the provision of law above referred to restricted the Governor General to an allotment of funds to each of the bureaus and offices of the government, not in excess of the amounts last appropriated for such bureaus and offices by acts of the Legislature. The administration, however, held that the Governor General was only restricted in his letter of advice to allot a total not in excess of the total amount last appropriated for all the bureaus and branches of the government, and that in his discretion the Governor General could, as was done, allot a lesser sum to one office and a greater amount to another.

The appointment of a Filipino majority on the Commission at once brought together the two houses of the Legislature and broke the deadlock which had existed. Several of the points at issue in immediately preceding years were speedily adjusted by the lower and upper houses. One of the most notable of these points of disagreement had been the insistence of the Assembly upon the right of the Legislature to exercise more complete control over the expenditures of the government, particularly with reference to the so-called reimbursable funds. Those bureaus of the government which were income-producing had been permitted to expend, in the discretion of the executive officers, the funds thus accruing. One result of this was great and increasing extravagance; another was a tendency of bureaus which received income from other departments of the government to charge as much as possible, in order to make a favorable showing and increase the amounts they could expend. The Assembly had in vain insisted that these abuses should be corrected. This was not done until January, 1914, when the new Philippine Legislature passed by unanimous vote the first general appropriation bill since 1910. By this law the income-receiving bureaus of the government were obliged to deposit in the insular treasury, to the credit of the general funds, such income, and, at the end of the new fiscal year, December 31, 1914, to revert into the treasury all unexpended balances, thus giving the Legislature control of the purse strings of the government.

Under the appropriation and other legislation of this new Legislature about five and a half million pesos, or about 19 per cent of the total expenditures of 1913, were saved during the calendar year 1914. That this economy was vitally necessary and put into effect just in time appears from the fact that in the calendar year 1913 the government spent more than ₱7,000,000 in excess of its income. This

had followed on three years, when from two to two and a half millions had yearly been expended in excess of ordinary income. The surplus was depleted and bankruptcy would have followed unless a check had been called. Not alone in this particular was the increased efficiency of the newly constituted Legislature apparent.

For example, a campaign had been directed against the Filipino people in certain quarters of the United States based upon the alleged refusal of the Filipinos to legislate against slavery which, it was alleged, existed in the islands. There was in fact a legal doubt whether existing law in the Philippines did prohibit slavery and penalize it and, consequently, one of the first acts of the new Legislature was to pass, by unanimous vote, a drastic antislavery law, applying to the islands, as supplementary to existing law, the provisions of the United States statute against slavery and peonage. It thus appears that the failure to pass such a law until that time was due rather to some inherent defect in the methods of those demanding its passage than to any lack of desire on the part of the Philippine Legislature to prevent such abuses. As a matter of fact, official investigations showed that slavery as it is understood in the United States and in the Philippines did not generally exist, as was asserted by interested persons who apparently exploited the cases of peonage which came under their notice for political reasons.

Many of the reforms effected by the new Legislature are touched upon in the immediately preceding report of the Philippine Commission. A well-founded apprehension about the condition of the treasury above alluded to made it imperative that retrenchments should be undertaken, and of a drastic nature. One of the most effective of these economies lay in the abolition of the bureau of navigation, which had outlived its usefulness and was increasingly extravagant, and the distribution of such of its property and functions as it was desirable to preserve to the bureaus of customs and public works. In the bureau of customs alone work formerly performed by the bureau of navigation was done at a saving of more than ₱400,000 during the year 1914, without loss of efficiency.

Another feature of the appropriation bill passed by the new Legislature was the reduction of certain salaries of the government, a point mooted for several years previously. It was evident that the size of some of the salaries was out of all proportion to the size of the treasury and the value of the work performed; and in a time of economy, in the financial crisis which had fallen upon them as an inheritance from the system of expenditures uncontrolled by legislative action, the legislators determined to effect some salary cuts. A rule was adopted by which salaries of ₱10,000 or over were cut 10 per cent, salaries below ₱10,000 and amounting to ₱6,000 or over, were cut 5 per cent, but salaries less than ₱6,000 were not reduced, in order not to infringe upon incomes providing only necessary living expenses. At the same time, another rule excluded from the operations of salary reductions the judges, and engineers, scientists, and other technical officers or employees of the government. While some dissatisfaction necessarily was felt at first by many of those affected, it is believed that most of them recognized the necessity of the action of the Legislature.

In this discussion of the accomplishments of the new Legislature it is not essential to rehearse all of the legislation and point out all the reforms accomplished. It is desirable, however, to emphasize the complete success of the policy of giving the Filipinos a majority of the Commission. Legislative machinery which had refused to work, or had been working with loud jolting and jarring, suddenly began to work with speed, quietness, and efficiency. Almost all of the bills which passed the Commission did so by unanimous vote of the members present. Frequent consultations about pending legislation took place daily between members of the two houses. Of the Assembly bills considered in the Commission, 108 out of 263 were passed, while the Assembly passed 86 out of 105 Commission bills.

Now that a satisfactory basis for a budget has been established, and a new system is in working order by which the calendar year is made the fiscal year, the appropriation bill for 1915 was passed in December, 1914, for the first time so early in a session, and for the first time an extra session of the Legislature was unnecessary. In previous years, even when an appropriation bill was not passed, many days of the last weeks of the session had been devoted to discussions of the bill, thus interfering with proper consideration of other measures.

This occasion is taken to express my deep appreciation of the consideration accorded the recommendations of the Governor General by the Legislature, and as a member of the Commission to express admiration for the ability and conscientious hard work of my colleagues. One who has had opportunity for intimate observation can not doubt for a moment the ability of the Filipinos to enact their own legislation, conservatively and without extravagance, with diligent attention to the needs of the Filipino people, and with a comprehension of these needs such as it is difficult, if not impossible, for men of another race to acquire.

CHANGES IN PERSONNEL.

The action of the national administration in filipinizing the Commission was followed by increased representation of Filipinos in the executive branches of the government. Filipinization of the government service was the policy of President McKinley in his organic letter of instructions, and has been indorsed with emphasis as a principle by succeeding Presidents and by most of the Governors General of the islands. Under whichever principle the Philippine question is even now discussed, whether of eventual independence or local self-government of the islands, it is obviously necessary to give the Filipinos an opportunity to fill any offices for which they demonstrate their ability. In fact, the law requires this, as is indicated by the following excerpt from the civil-service act:

Sec. 6. In the appointment of officers and employees under the provisions of this act, the appointing officer in his selection from the list of eligibles furnished to him by the director of civil service shall, where other qualifications are equal, prefer—

First. Natives of the Philippine Islands or persons who have, under and by virtue of the Treaty of Paris, acquired the political rights of natives of the islands.

Second. Persons who have served as members of the Army, Navy, or Marine Corps of the United States and have been honorably discharged therefrom.

Third. Citizens of the United States.

In addition to the justice of the policy of filipinization, it is obvious to all that efficiency must result when capable Filipinos are placed in office, because thereby the confidence and cordial cooperation of the people are obtained. An administrative efficiency which may sparkle in the lecture room is not necessarily perceptible in action when the cooperation of the people can not be obtained or when the opposition of the people is invited.

In spite, however, of the well-established policy of filipinization, it was found that on July 1, 1913, there were actually more Americans in the permanent civil service than in 1907 or 1908. The undersigned therefore adopted the policy of nominating Filipinos for offices for which they were fitted, whenever opportunity presented itself. At the present writing, of the thirty-one bureaus or offices of the government, eight have a Filipino at the head, instead of four, the highest number theretofore occupying such positions. It is now the announced policy, moreover, to appoint Filipinos to office, whenever vacancies exist, in the position of assistant chiefs of bureaus in which Americans are the chiefs. This has been done, since the undersigned became Governor General, in the bureaus of health, internal revenue, agriculture, and prisons. In the same period, moreover, Filipinos have been given a majority on the municipal board of the city of Manila, and Filipinos have been appointed to the offices of city attorney and prosecuting attorney of the city of Manila, to the latter office for the first time; Filipinos have been given a majority of the judicial positions of the courts of first instance; representation on the city council of the city of Baguio; and an increased number of administrative offices in the special government provinces, as well as many promotions in the clerical grades. Further progress in the higher branches of the government should be made when suitable opportunities offer.

In a consideration of the official personnel of the insular government it should be remembered that the civil-service laws do not cover the positions of chief and assistant chief of bureaus. Such high officials bear a large share in carrying out the practical operations of the governmental policy and the wisdom of permitting the appointment of such officials without reference to the civil-service law is apparent when it is brought to mind that the Governor General or secretary of department must depend for efficiency in his policies upon the loyal cooperation and genuine support of the bureau chiefs immediately subordinate to him. The changes made by the undersigned in this class of officials, however, have been generally governed by the rule of promotion in the insular service, and the net result has been that those at the heads of bureaus have now a longer average term of service in the insular government than was before the case.

In discussing the changes made in the personnel of the government since the undersigned assumed office four factors enter into consideration: First, filipinization (above discussed); second, dismissals or forced resignations for the usual causes (misconduct or inefficiency); third, reduction in the personnel of the government (in large part in the bureau of public works) because of necessarily reduced appropriations by the Legislature; and, fourth, in two or three of the cases cited below the desire of the Governor General to insure loyal coop-

eration in the new policies from those working with him in the government. Moreover, the reorganization of the higher personnel offered an opportunity of removing the antagonism which had grown up between certain of the executive branches of the government and the Filipino people, and thus to bring the government into touch with the people and insure a consideration of their wishes and needs. An American administration in the Philippines which considers itself free from the necessity of consulting the reasonable ideas of the people which it serves is certain to arouse antagonism between the races and dissatisfaction with efforts, however well intentioned, to administer the public affairs.

In every case where civil service laws have had any bearing the spirit as well as the letter of the civil service has been observed by this administration. Reference is made in another section of this report to improvements inaugurated in the spirit of the civil service.

Attention is invited to the fact that very few employees other than school-teachers have been brought out from the United States during the period under discussion to fill vacancies in the insular service. While it now appears that there were as of January 1, 1915, 1,978 Americans in the insular service, as against about 2,600 on October 1, 1913, approximately 300 of that decrease may be attributed to the rule adopted of not importing from the United States new employees for clerical or subordinate positions. Although in recent years about 500 Americans on an average have left the insular service annually, approximately 300 new untrained men were brought out from the United States. Somewhat more than 200 of these vacancies may be attributed to the reduced expenditures of the government following on the appropriation bill enacted to curb certain extravagancies and abolish useless offices in view of the threatened deficit in the treasury.

To mention, then, in more detail the changes in the higher personnel of the government, the first which invites comment is the position of the executive secretary. When in December, 1913, Brig. Gen. Pershing, United States Army, resigned his office as governor of the Moro Province in pursuance of orders to return to duty in the United States, the undersigned decided upon the appointment, for the first time, of a civilian as governor of the Moro Province. The executive secretary, Frank W. Carpenter, because of his knowledge, ability, and tact, and long executive training, was selected to fill this important post, the salary being raised by the Commission, in its exclusive jurisdiction over the non-Christian territories, to ₱18,000 a year from the previous figure of ₱12,000, so that Gov. Carpenter should not suffer a reduction of the salary he had received as executive secretary. The vacancy as executive secretary was filled by the appointment of Attorney General Ignacio Villamor, at a salary of ₱13,500, who, after holding the post with discretion and success for 17 months, has since been elected by the board of regents as president of the University of the Philippines.

The position of first assistant executive secretary was consolidated with the position of secretary to the Governor General, then vacant, and the position of private secretary to the Governor General, also vacant, was abolished. The former first assistant executive secretary, Thomas Cary Welch, resigned upon request, and his place was taken first by Stephen Bonsal, and three months later, when the latter

became a member of the board of public utility commissioners, by Samuel Ferguson, who had served 10 years in the insular service and had lately been a special agent in the executive bureau. Manual de Yriarte remained as second assistant executive secretary. Robert M. Shearer, a special agent of the bureau, was made third assistant executive secretary; William W. Barclay, a special agent in the bureau, was made fourth assistant executive secretary, and during his absence in the United States as director general of the Philippine Panama-Pacific Exposition Board, Argus O. Zinn, formerly private secretary to Secretary Dean C. Worcester, was made, until his resignation to return to the United States, acting fourth assistant executive secretary. Since the departure of Mr. Zinn, E. A. McCreary, provincial treasurer of Iloilo, has been acting fourth assistant executive secretary. William A. Randall remained as special agent during the development of the special work in connection with the land-tax revision. The position of chief clerk of the executive bureau, made vacant by the promotion of the former chief clerk to the position of secretary to the board of public utility commissioners, was filled by the appointment of a Filipino, formerly a chief of one of the divisions of the executive bureau. The position of assistant chief clerk was filled by the promotion of a clerk in the bureau.

By Act No. 2352 provision was made for the taking of a census of the Philippine Islands under the direction of the executive secretary. A new appointment in that bureau was made as a result of this act, J. Lindsay Johnson, of Georgia, being appointed census assistant, a temporary position. The only other appointments in the executive bureau from the United States were that of the assistant chief of the division of legislative records, the position of chief of the division having become vacant by resignation and the then assistant chief having been promoted, and, for a few weeks only, a private secretary, who accompanied the undersigned from the United States and immediately returned home, whereupon his position was abolished.

In the bureau of audits William H. Phipps resigned, and his place as insular auditor was filled by the Secretary of War by promotion of Clifford H. French before the arrival of the undersigned in the islands. Such other vacancies as occurred in this bureau in the regular course of events were filled by promotion in the bureau. The new insular auditor initiated a plan of reorganization in the bureau by which trained Filipinos will gradually have a greater share in the work of the bureau in the provinces.

In the bureau of civil service Dr. Bolivar L. Falconer resigned in December, 1914, to return home, on account of ill health, and Harry L. Hershey, the chief examiner, who had been eight years in the insular service, was appointed director of civil service. The former assistant director, John E. Enright, left the service on December 31, 1914, when the office of assistant director was unappropriated for by the Legislature. Only one appointment was made to the bureau of civil service, that of a clerk in the executive bureau, who was transferred at the request of the director of civil service to the position of examiner.

The board of public utility commissioners, modeled on the board of the State of New Jersey, was created by Act No. 2307 of the Legislature, and there were appointed at the end of January, 1914, a chairman, for six years, Mariano Cui (a judge of the court of first instance); Stephen Bonsal, for four years (secretary to the Governor General); and Clyde A. Dewitt, for two years, a member of the Manila bar, some years before a teacher in the bureau of education. The board of rate regulation was abolished by the same act and its duties given to this board, as was also the case with the functions of the office of supervising railway expert; Loomis F. Goodale, until then supervising railway expert, being retained by the new board as an inspecting engineer.

The Philippine board of the Panama-Pacific International Exposition was reorganized when it became necessary actively to undertake the work of preparation and departure from the islands for San Francisco. Commissioner Palma and Manuel Tinio, director of the bureau of lands, resigned their places on the board when their other official duties in the Philippines made such resignation appear to them advisable. Leon Ma. Guerrero, former secretary of the board sent to the St. Louis Exposition, became president of this board; William W. Barclay, the fourth assistant executive secretary, was appointed director general and member, and Francisco Liongson, governor of the province of Pampanga, was appointed a member. The position of secretary to the board was consolidated by act of the Legislature with that of director general, and Daniel R. Williams, who had held the former post during the preliminary work, was suitably compensated by appropriation for that purpose.

In the bureau of health, Dr. Victor G. Heiser, after 10 years of distinguished service as director, resigned in December, 1914, to take up a wider field of work with the Rockefeller Foundation, and Dr. J. D. Long, of the United States Public Health Service, formerly assistant director of the bureau of health of the Philippines, was made director, upon the recommendation of Dr. Heiser. In December, 1913, the post of assistant director of health being vacant, the undersigned, after consultation with Dr. Heiser, appointed to the position Dr. Vincente de Jesus for 12 years a member of the staff of the bureau of health. Doctor Heiser's resignation was accepted with regret and the assurance that if he would stay his position as director of health would be permanent so long as the undersigned remained Governor General. As his valuable services were thoroughly appreciated, all of his official acts were strongly supported by this administration. His resignation was entirely voluntary, to assume what seemed to him a more important or far reaching office. No other changes except routine were made in this bureau.

In the bureau of lands a special situation was considered to exist. The director, Charles H. Sleeper, a diligent official of the government, was closely identified with the policy of the former administration which permitted the sale of the friar lands in large quantities to agricultural corporations. This was contrary to the wishes of the Filipino people, and was forbidden by law as to the other public lands of the insular government. The matter is too well known in Congress and in the islands to need further discussion at

this point. The undersigned believed that it was wise to give the Filipino people a directing voice in the question of public and friar lands, and thus requested the resignation of Director Sleeper and appointed in October, 1913, as director of the bureau of lands, Manuel Tinio (then director of the bureau of labor). The assistant director, John R. Wilson, resigned of his own accord, and the provincial treasurer of the province of Pangasinan, Walter E. Jones, was in April, 1914, appointed to that position, after 14 years service in the insular and provincial governments. Manuel Tinio, the director of lands, resigned effective October 1, 1914, and Rafael Corpus, then solicitor general of the government of the Philippine Islands, was appointed in his place.

Mr. Tinio who, as above stated, was appointed director of lands from the position of director of labor, which he had successfully filled under previous administrations, went into office with a prophecy on the part of many persons not well disposed toward him that he would fail. Shortly after his induction into office, rumors to the effect that he was a poor executive, if not actually venal, became circulated in the city of Manila and the province of Nueva Ecija, of which Mr. Tinio is a native. The Governor General requested the secretary of the interior, Mr. Tinio's immediate superior in office, to investigate these charges. This was done and the secretary of the interior advised the Governor General orally that there was no foundation for the rumors.

These rumors, however, insistently and persistently continued, and the Governor General then requested that the secretary of the interior make a formal investigation. Prior to the first investigation Mr. Tinio had indicated his desire to be relieved from office, owing to the fact that he met with much concealed opposition in the bureau, apparently on the part of employees opposed to having as their chief a Filipino. He was persuaded to retain his office, and no action was taken on his request to be relieved, and he was advised that he would be supported by the administration in every proper way.

The first investigation of the charges mentioned was an informal one, made without the knowledge of Mr. Tinio. When the second investigation was made Mr. Tinio was advised thereof, and immediately notified the Governor General that he would not present his resignation, and that he demanded a full and complete investigation. The secretary of the interior, after an exhaustive inquiry, reported to the Governor General that Mr. Tinio's actions were free from any indication of mismanagement or criminal action. Immediately upon the conclusion of the investigation and report to the Governor General Mr. Tinio resigned, as above set forth.

The rumors began within three months after his assumption of office and were based on alleged illegal grants of homesteads. Under the laws of the Philippine Islands, five years of occupation must ensue before a homestead can be granted, and the average length of time in the Philippines has been eight years. All homestead applications passed through the hands of subordinates, both Americans and Filipinos, in the bureau of lands. The groundlessness of the charges made against Mr. Tinio can thus be understood.

Certain rearrangements of the staff of the bureau of lands, to promote efficiency and further the work of both American and Filipino employees, is discussed in the report of the secretary of the interior.

In the bureau of science the vacancy already existing as director was filled by the promotion of the assistant director, Alvin J. Cox, and the post of assistant director left vacant. Certain plans of retrenchment and economy were deemed necessary by the Legislature in providing for this bureau, as mentioned in the report of the secretary of the interior, the general intention being to direct the work of the bureau into channels as practical as possible, especially during the period of financial stringency.

In the bureau of forestry the veteran director, George P. Ahern, resigned in November, 1914, to retire from office on account of the condition of his eyes, and the assistant director, William F. Sherfese, was promoted to the position of director. The place of assistant director, thus vacated, was not appropriated for by the Legislature for the year 1915. No other changes, except routine, were made in this bureau.

No changes were effected in the weather bureau which is still presided over by the well-known scientist, Father José Algue, S. J.

In the constabulary, the acting chief, Col. James G. Harbord (captain, United States Army), was returned by operation of law to duty in the United States in December, 1913, and Col. William C. Rivers (major, United States Army), the assistant chief, who was also subject to return to duty in the United States in 1914, was made brigadier general and chief of constabulary from January 1, 1914, to March 31, 1914. On April 1, 1914, Herman Hall (major, United States Army), formerly for some years colonel and assistant chief of constabulary, and lately aid-de-camp to the Governor General, was made brigadier general and chief of constabulary. In June, 1914, however, Congress having extended the operation of the so-called "Manchu" law to field officers, Gen. (Maj.) Hall was obliged to resign the command of the constabulary, and return to duty with his regiment until the requisite period of his service with troops should expire in January, 1915. Col. Wallace C. Taylor, the senior colonel, was thus made acting chief of constabulary from June, 1914, to January, 1915, when Brig. Gen. Herman Hall again assumed command. During the year 1914, Col. Mark L. Hersey (major, United States Army) and Col. John B. Bennet (major, United States Army) were also returned to duty with their troops by the operation of law. Col. Peter Traub (major, United States Army) was appointed to one of the vacancies thus existing, and Col. Marcus D. Cronin (major, United States Army) to another. Thus, in January, 1915, there were the following positions in the Philippine Constabulary which were filled by officers of the United States Army—chief, two colonels and assistant chiefs, and one inspector; instead of a chief, four colonels and assistant chiefs, and two inspectors as formerly. The present policy is to give increased representation in the highest grade to senior civilian officers of the constabulary in recognition of their long service. Thus in 1914 Col. Crame was promoted from lieutenant colonel; Col. John R. White (since retired on account of ill health), from lieutenant colonel; Col. Edward W. Griffith (since resigned), from lieutenant colonel; Col. George D. Long (since retired on ac-

count of ill health), from lieutenant colonel; and Col. Charles C. Smith, from lieutenant colonel. Other vacancies in the constabulary above the lower grades have been filled by promotion, except in the case of Capt. Vernon L. Whitney, who was reappointed as captain in the constabulary in recognition of his services to the government as governor of Jolo.

The bureau of public works has had no change at the head, Warwick Greene remaining as director; but various changes were effected in the bureau upon a plan designed by the director at the request of the Governor General, and adopted by the Legislature in the appropriation bill of 1914. In a time of financial stringency it was deemed necessary to effect a reorganization of this bureau by way of economy and retrenchment, a plan which, in some of its features, had previously been under contemplation in the recent past. The net result of this inevitable retrenchment was the reduction of the force of the bureau in 1914 from 470 employees on June 30, 1913, to 353 employees in the classified service, consisting of 124 Americans and 229 Filipinos; and a rearrangement of the distribution of work which brings greater efficiency. It may herewith be observed that this greatly reduced force is handling with entire competency the public works for 1915, the largest program undertaken in recent years.

By Act No. 2314 of the Legislature the office of consulting architect was made a division of the bureau of public works. Consulting Architect William E. Parsons resigned, and the assistant, George C. Fenhagen, was appointed to the office.

In the bureau of posts Charles C. Cotterman resigned to devote himself to business in Manila, and the director of internal revenue, William T. Nolting, was appointed director of posts. Mr. Nolting has since resigned to enter business in South America. No changes other than routine have occurred in this bureau. The Manila post office has, however, been to a considerable extent filipinized.

The bureau of coast and geodetic survey on the 1st of March, 1914, changed its director, Capt. William C. Hodgkins taking the place of Capt. Welker, both of the United States survey service, pursuant to regulations of that service.

In the bureau of labor Manuel Tinio was made director of the bureau of lands, as above mentioned, and the assistant director, Bernardino G. Monreal, was made director of labor. Faustino Aguilar was made assistant director.

The bureau of justice experienced several changes, due to promotion. The attorney general, Ignacio Villamor, became executive secretary. Ramon Avanceña, up to that time a judge of the court of first instance, became attorney general on January 2, 1914. Solicitor General George R. Harvey became a judge of the court of first instance on July 1, 1914, and Rafael Corpus, member of the Assembly from Zambales, took his place. Subsequently Mr. Corpus was appointed director of lands, and the position of solicitor general was left vacant, the Legislature having failed to appropriate for the position. George A. Malcolm, an assistant attorney of the bureau, left the bureau of justice to devote his time to the work of the law school of the University of the Philippines, of which he is dean. Robert C. Round, whose former position as law clerk of the bureau of internal revenue was abolished as a result of the reorganization of that

bureau, was transferred to the position of an assistant attorney of the bureau of justice. Richard U. Strong, formerly in the bureau of lands, was similarly appointed an assistant attorney. James R. Burgett, by transfer from the United States civil service, was appointed an assistant attorney of the bureau in January, 1914, and later, in July, 1914, was appointed auxiliary judge of the court of first instance.

The resignation of the insular collector of customs, Henry B. McCoy, was requested in October, 1913, and Bernard Herstein, of New York, was appointed to that position. Dr. Herstein had been an expert attached to President Taft's Tariff Board, and later an adviser to the congressional committees during the Underwood revision of the tariff. The bureau of customs has been charged by Act No. 2308 of the Legislature with the duties of the division of vessels, marine railway and repair shops, and lighthouses of the former bureau of navigation. Both in these particulars and in the collection of revenue Collector Herstein has effected large economies in pursuance of the terms of the appropriation bill of January, 1914. No changes except those of a routine nature are otherwise recorded in the bureau of customs beyond the reduction of employees in the clerical force required by the terms of the appropriation bill.

The collector of internal revenue, William T. Nolting, having been transferred to the directorship of the bureau of posts, on January 1, 1914, James J. Rafferty, deputy collector of customs in Zamboanga and for 12 years in the insular service, was appointed collector of internal revenue. In the calendar year 1914, in spite of the depression in trade due to the European war, the bureau of internal revenue collected ₱22,550,109.37, or ₱365,208.14 more than in the calendar year 1913. The resignation of Deputy Collector Henry B. Steere was requested and Venancio Concepcion, of Cagayan Province, was appointed deputy collector in January, 1914. Other changes in the bureau are of an ordinary routine nature, the filipinization started by Collector Nolting having been continued by Collector Rafferty.

No changes are noted in the bureau of the treasury except a slight reduction of force with resultant economies of ₱3,000 per annum.

In the large bureau of education the only change in the personnel to be remarked upon was the promotion of Walter W. Marquardt, the senior division superintendent, to be second assistant director of education, an existing vacancy. Forty-five new American school-teachers were brought out to the Philippines in 1914. The school attendance was raised from 440,050 to 621,030 during the year and 1,000 new primary schools provided for by appropriation. Considerable extension of school work among the non-Christian people was also undertaken.

In the personnel of the University of the Philippines no important changes were made in 1914, except the appointment of Sixto de los Angeles to the board of regents to fill an existing vacancy.

The personnel of the bureau of agriculture had several important changes. Director F. W. Taylor resigned in March, 1914, to return to the United States, and Assistant Director Harry T. Edwards, who was serving his thirteenth year in the insular service, was made director. To the position of assistant director, Adriano Hernandez,

the governor of the province of Iloilo, was appointed. In December, 1914, William E. Cobey, chief clerk of the bureau, was made second assistant director. In this bureau particularly, dealing as it does so intimately with the daily life of the Filipino people, it is believed more rapid filipinization would bring the bureau more closely into touch with the populace it serves.

In the bureau of supply no changes were made except a reduction of 11 American and 11 Filipino employees, due to necessary economies prescribed by the Legislature.

The director of the bureau of prisons, Mortimer L. Stewart, resigned in December, 1913, to become editor of a Manila newspaper, and his place was filled by the appointment of Dr. Walter H. Dade, warden of the San Ramon Penal Farm in Mindanao. The assistant director, Lafayette Dorrington, resigned, having secured an appointment in the federal service, and Dr. Charles G. Thomson, of the bureau of agriculture, was appointed in his place. Julius W. Quillen, the second assistant director, having been appointed in August, 1914, superintendent of the Iwahig Penal Colony, Manuel Guarina, the former governor of the province of Sorsogon, was appointed in his place. The position formerly occupied by Director Dade as superintendent of the San Ramon Penal Farm was filled by the appointment of Joseph B. Cooley, of the bureau of constabulary. No other changes are noted in the personnel of the bureau of prisons.

John S. Leech, the director of printing, was asked to resign by the Governor General, owing to the fact that he took an active part in inciting the employees of his bureau to send cablegrams to the President of the United States and other persons, alleging that certain action was contemplated by the Philippine Legislature when, as a matter of fact, no such action was under consideration, and the immediate superiors of Mr. Leech were not requested by him for information. The resignation of James Hoggsette, assistant director of the bureau of printing, was requested because of his refusal, upon request, to furnish information regarding the acts above referred to when such information was in his possession. Their places were filled by promotion from the top of the bureau, Edward E. Gessler being appointed director and Samuel H. Musick assistant director. No other changes are recorded.

In the Philippine Library and in the sales agency board during 1914 no changes of importance were made.

The personnel of the Philippine judiciary remains much as it was before, although the courts of first instance were upon July 1, 1914, reorganized by Act No. 2347 of the Legislature.

Victorino Mapa resigned from the supreme court in October, 1913, to become a member of the Philippine Commission and secretary of finance and justice. His place upon the supreme court was filled by President Wilson by the appointment of Manuel Araullo, the president of the Philippine code committee. The increasing business of the courts necessitated a larger bench in the court of first instance, and in addition a reorganization of that court was necessary, because of the size of the territory to be covered by each judge and the inconvenience of the existing arrangement. Moreover, the work of the land registration court was falling so far behind the necessary requirements that it was decided to distribute the work of this court

among the judges of first instance. With these needs in view, a judiciary reorganization act, No. 2347, effective July 1, 1914, was passed.

Prior to the passage of this act there were in existence, besides the supreme court, the courts of first instance, consisting of 16 regular provincial judicial districts, the mountain district, 3 branches of the Manila court of first instance, and also the general land registration court, with 5 judges, as well as 4 judges of the court of first instance at large; or, in all, 29 judges. The reorganization act abolished the court of land registration, creating in place thereof the general land registration office, the duties of which are solely administrative, and the judicial functions of the old court of land registration were transferred to the judges of the court of first instance. The reorganization act also created 26 judicial districts, giving the ninth judicial district, which comprises the city of Manila, 4 judges, and providing for 7 auxiliary judges, making in all 36 judgeships. All of the judges in the service at the time of the reorganization were reappointed, including those serving in the court of land registration, and the following new judges and auxiliary judges were also named:

Hermogenes Reyes, from 1904 to 1906, served as fiscal, or prosecuting attorney, of the province of Bulacan, and in 1907 as a member of the provincial board of Bulacan; from 1909 to 1912 as delegate to the Philippine Assembly from the first district of Bulacan; from 1912 to the date of his appointment as judge he practiced law in the province of Bulacan.

Vicente Miranda was a practicing attorney of wide experience in the city of Manila, whose standing both as a lawyer and a member of society is excellent.

William M. Connor, jr., entered the Philippine service as a teacher in 1902; in 1903 was appointed to a position in the provincial government of the Moro Province; the same year was appointed assistant attorney of the Moro Province, in which position he served until September 26, 1908, when he was appointed attorney for the Moro Province. He was appointed city attorney of the city of Manila April 1, 1914, and in that position was serving at the time of his appointment as judge.

Andres Borromeo was appointed originally to the Philippine service in March, 1901; in August, 1904, was appointed deputy fiscal of the province of Cebu, from which position he resigned in 1905; was appointed fiscal of the province of Bohol in 1906; was promoted as fiscal of the province of Cebu in 1909, and from that position appointed judge.

James R. Burgett was transferred from the United States service and served as assistant attorney in the bureau of justice until his appointment as auxiliary judge.

Manuel Vivencio del Rosario was appointed to the Philippine civil service January 1, 1902, and served in the court of first instance until 1903, when he was appointed provincial secretary of the province of Sorsogon; was appointed fiscal of the province of Albay June 1, 1905, and served continuously as such until his appointment as auxiliary judge.

Fernando Salas was appointed originally to the civil service of the Philippine Islands February 11, 1902, and resigned the same year;

April 11, 1903, was appointed assistant attorney in the bureau of justice, and served until July, 1905, when he resigned. On December 21, 1909, he was appointed fiscal of the province of Rizal, and was serving in that position when appointed auxiliary judge.

Cayetano Lukban was appointed fiscal of the province of Cagayan and Isabela on August 24, 1910; was promoted to fiscal of the province of Ilocos Sur May 6, 1914, in which position he was serving when appointed auxiliary judge.

Fermin Mariano had no previous experience in the Philippine civil service, but bore an excellent reputation as a lawyer and citizen.

Tomas Flordeliza was appointed fiscal of the province of Ambos Camarines July 8, 1907, and served in that position until his appointment as auxiliary judge.

Each of these appointments was made on the merit system, and met with general approval throughout the Philippine Islands.

In the selection of new judges and the reassignment of the judges already serving the Governor General before recommendation to the Philippine Commission consulted the secretary of finance and justice, and reassignments were made with a view to the convenience of the judges then in the service.

The Governor General reports with regret the death on December 19, 1913, of Charles A. Low, judge of the fourteenth judicial district. To the position left vacant by the death of Judge Low, George N. Hurd, then a judge at large of the court of first instance, was appointed on February 7, 1914. Bartolomé Revilla on January 21, 1914, was appointed to the position of judge at large, theretofore held by Judge Hurd. Ramon Avanceña, judge of the twelfth judicial district, comprising the provinces of Leyte and Samar, was appointed attorney general January 2, 1914. The position left vacant by Judge Avanceña's appointment was filled by the appointment of Jesse George, formerly judge of the court of land registration.

Mariano Cui, judge of the seventh judicial district of the old organization, was appointed chairman of the board of public utility commissioners February 3, 1914. He was succeeded as a judge of the court of first instance by George R. Harvey, former solicitor general, whose appointment became effective February 4, 1914. Charles S. Lobingier, judge of the court of first instance, district of Manila, in the old organization, resigned from the service February 15, 1914, to accept appointment as judge of the United States Court at Shanghai. His resignation was accepted effective June 30, 1914, the position vacated by him being left unfilled until the reorganization on July 1, 1914. A. S. Crossfield, judge of the court of first instance, district of Manila, in the old organization, resigned on June 30, 1914, to take up the practice of law. Judge Crossfield's resignation was accepted with regret, as he had rendered long and faithful service as a judge of the former court of customs appeals and of first instance in Manila.

The positions left vacant in the old organization by the resignations of Judge Lobingier and Judge Crossfield may be considered as being now filled by the appointments in the new organization of Judge Campbell and Judge Harvey. Judge Campbell had many years' service as assistant attorney of the bureau of justice and as

judge of the court of first instance, first district, mountain district, and tenth judicial district.

The code committee, upon the promotion of Manuel Araullo to the supreme bench, received a new president in Francisco Ortigas, a member of that committee for four years, while Macario Adriatico, member of the Assembly from Mindoro, was appointed to the vacancy on the committee.

It is with regret that the Governor General has to report the death on May 12, 1915, of Rafael del Pan, member of the code committee. Judge del Pan was appointed to the committee on July 28, 1909, and served as member thereof until his demise.

In the provincial service, the officials are for the most part elective, except in the special government provinces, which are discussed in the reports of the secretary of the interior and the governor of the department of Mindanao and Sulu. In the Mountain Province the personnel built up by former Secretary of the Interior Dean C. Worcester has been practically unchanged, except one resignation of a lieutenant governor, accepted for cause. Elsewhere, wherever possible, gradual filipinization is taking place, so as to extend the scope of local self-government, as, for example in Mindoro, where Juan Morente, jr., was appointed governor to fill a vacancy caused by the resignation of Capt. Stone of the Philippine Scouts. The following governors of provinces have also been appointed by the undersigned, pursuant to law, to serve until the next election: Cavite, Antero Soriano; Iloilo, Amando Avanceña; Laguna, Marcos Paulino; Pampanga, Honorio Ventura.

In the municipal service of the city of Manila, several changes in the personnel have taken place. Arcadio Arellano was appointed a member of the municipal board in October, 1913, to fill an existing vacancy, and in April, 1913, W. A. Hastings resigned to return to the United States, his place being filled by the appointment of Dr. Albert P. Fitzsimmons, mayor of Tecumseh, Nebr., and formerly in the United States Army Medical Corps in the Philippines. The secretary of the municipal board resigned July 31, 1914, to enter private business in Manila, and the chief of the provincial division of the executive bureau was appointed to his place. Upon the resignation of City Attorney Fisher N. Nesmith, José Escaler, a practicing lawyer and member of the board of regents of the University of the Philippines, was appointed to the position. The resignation of Prosecuting Attorney W. H. Bishop was requested, and in his place Assistant Prosecuting Attorney Quintin Paredes has been appointed.

No changes occurred in the higher personnel of the fire department. In the police department considerable friction was found to exist as a result of the two recent investigations, and it was thought best by the undersigned to reorganize the head of the department. Consequently, the resignation of John E. Harding, the chief of police, was asked and received. In his place Assistant Chief of Police George Seaver was promoted to chief of police, and the senior captain, Alexander Harmon, was promoted to assistant chief. The resignations of two police captains were also requested, and their places filled, one by promotion in the force and the other by the appointment of John Hughes, of New Jersey, who served until

August, 1914, when he resigned and returned to the United States. The position thus left vacant was filled by the promotion of Sergt. Manning, the next ranking officer.

In the department of city schools, upon the promotion of Walter W. Marquardt to be assistant director of education, Luther B. Bewley was appointed superintendent.

In the department of engineering and public works the only change was the appointment of José P. Katigbak to the vacant position of assistant city engineer.

As before stated, Act No. 2352 provided for the taking of the census of the Philippine Islands under the direction of the executive secretary. J. Lindsay Johnson, of Georgia, as already set forth, was appointed one of the census assistants and Epifanio de los Santos, fiscal of the province of Bulacan, was appointed to the second and Charles R. Cameron, secretary of the Department of Mindanao and Sulu, was appointed to the third position as census assistant. All these positions are temporary.

The changes in the personnel of the insular service following on the changes of membership of the Philippine Commission under the present administration in Washington have thus been discussed in detail because of the evident misunderstanding in the United States as to what changes occurred and as to the reasons for making such changes. Such misunderstanding has been due in great part to a campaign of actual misrepresentation conducted both by disgruntled persons formerly in the Philippine service and by persons not in sympathy with the policy of the present administration, especially so far as concerns the future attitude of the American Government to the people of the Philippine Islands. It will be observed that the rule of promotion in the insular service has been usually followed in filling vacancies in the 24 instances when vacancies occurred in the heads or assistant heads of bureaus; that in consequence these officials now average longer terms of service than previously was the case; that in only 5 cases in the insular service and 4 cases in the service of the city of Manila were resignations administratively forced upon officers of the government; that in 17 cases resignations were voluntarily presented either to accept positions elsewhere in the service, to enter business, or to return to the United States for reasons of health or otherwise; that in only 6 cases—except in the constabulary, health, and coast and geodetic survey, where regularly occurring vacancies were filled by officers of similar branches of the United States service—were the higher offices filled by selection in the United States, viz, insular collector of customs, one auxiliary judge, member board of public utility commissioners, member of the municipal board of the city of Manila, assistant director of the census, and one police captain, since resigned.

By direction of the Governor General, the practice of sending to the United States for employees for purely clerical duties has been stopped, and practically no employees of any kind were brought over during the year 1914 except school-teachers and technical employees. In Executive Order No. 21, dated February 18, 1914, the views of the Governor General in this connection are set forth as follows:

In the exercise of power conferred by act of Congress of July 1, 1902, known as the Philippine bill, and by Act No. 1698 of the Philippine Commission, known

as the "revised civil-service act," the Governor General hereby approves and promulgates the following amendment of section 5 of Civil Service Rule III, as promulgated by Executive Order No. 5, series of 1909:

5. Examinations in the Philippine Islands shall be held in Manila and in the Provinces upon such dates as the Director may deem best for the interest of the service and the convenience of applicants, and examinations in the United States will be held under the auspices of the United States Civil Service Commission at the request of the Director: *Provided*, That when there are names on the proper eligible register of the Bureau of Civil Service no appointment shall be made to a position in the classified civil service of a person residing outside the Philippine Islands unless, after comment by the appointing officer and the Director, the Governor General shall decide that the eligibles do not possess the technical knowledge and training or other qualifications or requirements necessary for the position sought to be filled or that the best interests of the service require the appointment of a nonresident.

As further stated in the report of the director of the civil service, "on account of the increasing number of better educated Filipinos who were able to qualify in the first and second grade examinations appointing officers have almost ceased making appointments in Manila from the third (the lowest) grade register of eligibles, and there has been a marked decrease in the number of eligibles appointed from this register in the provinces. For this reason the third-grade examination was given only once during 1914."

As demanded by the economies put into effect by the Legislature, there was a general reduction of personnel throughout the insular service and the municipal service of Manila in 1914. Of the appointees from examinations, only 6 per cent were Americans and 94 per cent Filipinos, instead of 11 and 89 per cent, respectively, in 1912 and 1913.

In the classified service but 54 Americans were brought from the United States in 1914, of whom 45 were teachers; and in the unclassified service 39 Americans were brought from the United States, 18 as constabulary officers and 10 as superintendents of agricultural experiment stations; the other 11 were, except as above mentioned, chiefly technical experts.

On August 22, 1914, after the breaking out of the European war, the undersigned issued an order looking to greater economy, on account of the alarming drop in customs receipts, and directed the suspension of promotions for the present, and that positions which became vacant should not be filled. This rule was gradually relaxed as the revenues improved, in order to maintain the efficiency of the service. During the whole year there were 2,944 appointments in the insular and provincial service and in the city of Manila by promotion, reduction, reinstatement, and transfer, as compared with 3,243 for the fiscal year 1913.

During the year 1914 about 29½ per cent of the American officers and employees were separated from the service, as follows: Four hundred and seventy-eight resigned voluntarily (approximately a normal number), 127 were separated by reduction of force or abolition of position, 18 were separated for cause, and 10 died. The permanent reduction of American representation in the staff of the government is largely due, as above stated, to the practical cessation of the practice of sending to the United States for persons to fill clerical or subordinate positions. The following table, taken from the report of the director of civil service, shows the record of

separations of Americans from the service in every year from 1903:

Fiscal year ended June 30.	Number of Americans in the service on January 1.	Number of separations of Americans.			Per cent of separations of Americans.		
		Voluntary.	Involuntary.	Total.	Voluntary.	Involuntary.	Total.
1903.....	2,777	617	269	886	22	10	32
1904.....	3,228	787	313	1,100	24	10	34
1905.....	3,307	614	195	809	18	6	24
1907 ¹	2,616	536	90	626	20	4	24
1908.....	2,479	407	77	484	17	3	20
1909.....	2,659	376	62	438	14	2	16
1910.....	2,633	508	92	600	19	4	23
1911.....	2,633	481	71	552	18	3	21
1912.....	2,680	412	50	462	15	2	17
1913.....	2,623	461	44	505	17	2	19
July to December, 1913, half year.....	2,623	187	98	285	7	4	11
1914.....	2,148	478	155	633	22	7	29
1915, half year (estimated).....	1,978	200	20	220	10	1	11

¹ No data for 1906 are available. ² July 1.

It will be noted that in the years 1903, 1904, and 1905 the number of separations was greater than in 1914.

The needs and activities of the government are growing year by year as is observable in other modern governments and there was an increase in the number of Filipino employees on the pay roll on July 1, 1914. Considered for the whole 18 months period from January 1, 1913, to July 1, 1914, the table shows a decrease of 475 in the number of Americans and an increase of 920 in the total number of Filipinos. Of this increase of Filipinos, 113 are telegraph operators in the bureau of posts, not formerly carried in these statistics. "The actual increase in the number of Filipinos, therefore," says the director of civil service, "is 807, of whom 10 are in the legislative branch of the service, 33 are in the judiciary, 85 in the municipal service of Manila and Baguio, 266 in the provincial service, and 413 in the bureaus and offices of the executive branch of the Philippine civil service. * * * Of the increase in the executive branch of the service, 142 are in the bureau of posts (many new post offices), 96 in the bureau of education, 60 in the bureau of forestry (expansion of work which increased revenues), 50 in the bureau of lands, and the remainder in small numbers in the other bureaus and offices." Of the apparent increase of Filipino employees in the provincial service, 95 are due to the reassessment of land values throughout the islands for purposes of taxation, a temporary work which should soon be completed.

The director of civil service reports that on December 31, 1914, there were in the service 1,978 Americans and 7,394 Filipinos, a total of 9,372; and that the decrease in the total number of employees since July 1, 1914 (above table), is 59, a decrease of 170 Americans and an increase of 111 Filipinos.

In order to provide for the transfer to the Federal service of employees separated from the insular service through filipinization or reduction of force prior to the completion of the three years of service previously required, the President on June 15, 1914, on recommendation of the United States Civil Service Commission, issued

an amendment of section 10 of Rule X reducing the term of service required in the insular service to two years, if authorized by the United States Civil Service Commission, "if he (applicant for transfer) is especially recommended by the War Department because of his efficiency and good character." From October, 1913, to June, 1914, the Bureau of Insular Affairs secured the transfer of 54 persons to the Federal service upon separation from this service, at an average salary of \$1,400. It is probable that all who desire it can secure such transfers if they will go to Washington personally and are willing to enter at the usual entrance salary. Nevertheless, the recommendation of the secretary of the interior, in his report herewith, is concurred in, that in each deserving case the next vacancy occurring in the Federal service should be made available, in order to give employees separated by filipinization a priority of recognition. The policy of filipinization is recognized in theory by each successive administration in Washington, and every concession made of employment in the United States Federal service is but a just reward for meritorious service here.

Two orders of the undersigned, in October, 1913, soon after his arrival in the Philippines, are intended to strengthen the morale and enforce the spirit as well as the letter of civil service. The first is Executive Order No. 103, dealing with financial investments in the islands made by civil service and all other government employees. Existing executive regulation forbade investments by employees and officers of the government in the islands without permission, but it had been the practice to grant such permission freely. This was contrary to the spirit of administration in similar establishments of recognized high standard, and was not always conducive to the singleness of purpose requisite for efficiency in the civil service here. The practice of permitting or encouraging officials to invest in the country they are sent out to administer verges dangerously upon the old system of government by chartered companies for commercial exploitation, a system which is being generally abandoned elsewhere as unsatisfactory in that it leads to oppression, maladministration, and often to suppression of the facts as to the true state of public affairs. Aside from the temptation to be unfairly influenced by such investments in the conduct of office, the time and attention of the employee was thus apt to be absorbed to the detriment of his official work. Moreover, under policies announced by all administrations that American occupation of the islands is not to be permanent, the official with investments here is apt to be unduly influenced in his attitude toward such policy, as well as to believe he was being made to suffer an unfair hardship if his turn came to return to the United States under the process of filipinization. In addition to this, there was the determined opposition of the Americans and Filipinos in business in the Philippines to the practice of officers and employees of the Philippine government engaging in direct competition with such business men. Therefore, in Executive Order No. 103, series of 1913, it was stated that henceforth executive permission to invest or to seek outside employment would be granted only in case the investment or employment would clearly appear to offer no interruption of work, or interference with the time or strength due the government, or cause unfair com-

petition with established business conducted by private persons. Investments already made under former executive permission were not to be disturbed unless they tended unduly to influence the official in the performance of his official duties or to impair the credit of the government.

The other order referred to was in reference to political organizations. By a circular of the director of civil service, dated June 25, 1909, and approved by the Governor General, officials and employees of the government had been forbidden to engage in political activities, but this prohibition had subsequently been interpreted to refer only to political organizations of parties in Filipino politics; a subsequent circular of the director of civil service, dated December 9, 1913, and approved by the Governor General, made it clearly appear that this rule applied to activities in the work of American political parties in the islands as well.

In concluding this report of the civil-service administration of the government, it is desired emphatically to state that in all questions affecting the civil service the spirit, as well as the letter of the law and regulations in force, has been observed. The officials and employees of this government are to be congratulated upon the unselfishness with which they have cheerfully devoted their best efforts to the service, upon their diligence and devotion to their work, and upon the fact that with reduced force in many bureaus and offices, made necessary by economy, the work of the government has not only not diminished in efficiency, but in general has actually increased.

WORK OF THE BUREAUS AND OFFICES IN 1914.

After the discussion of changes in the personnel of the government, a brief reference will be made to the work of the bureaus and offices. The accompanying reports of the secretaries of department make unnecessary at this point an extended description of matters elsewhere mentioned.

PUBLIC UTILITIES COMMISSION.

Reference has already been made to the creation by Act No. 2307 as amended, of the board of public utility commissioners, and the composition of its membership. The creation of such a board was urged by Acting Governor General Gilbert in his last report, that of September 25, 1913, and the law was enacted on December 19, 1913, with my earnest recommendation. The relation of the public to the public service corporations, the attitude of such corporations toward the public, and, in the Philippine Islands, the relation of the government to the interest-guaranteed bond issues of the railroads are all of vital importance. It was evident, from recent transactions in the islands, that the interests of all these entities were not sufficiently conserved by existing agencies. It is believed that the public utilities commission has already amply demonstrated the wisdom of its creation and that it is absolutely essential that this agency should be supported and maintained by the government to protect its vested interests in the guaranty of railroad bonds. The time of the board was occupied for at least five months with an investigation into the method of acquiring right of way on the southern lines of the Manila Railroad Co., in which the government has

particular fiduciary interest by reason of its bond guaranty, and the board reported to the undersigned that frauds of an approximate amount of ₱900,000 had been committed in the acquisition of this right of way, which sum had already been bonded, or was about to be bonded, and the interest on the bonds to be guaranteed by the government. After consultation with the attorney general, this report of the board of public utility commissioners and other reports on this matter in the hands of the Governor General, were turned over to Louis M. Southworth, of the Manila bar, to act on special retainer on behalf of the bureau of justice, to prosecute any or all persons found to be guilty of criminal acts in connection with these right-of-way frauds. At the same time the board of public utility commissioners adopted certain regulations which will, it is believed, prevent a repetition of the practices which created these frauds.

In addition to the railroad right of way case above mentioned 163 other cases came before this board in 1914, and of those 137 were disposed of.

MUNICIPAL BOARD OF THE CITY OF MANILA.

The work of the municipal board of the city of Manila during the year 1914 has been marked by conservative administration of the city's finances. At the end of 1913 the municipal board was found to have incurred with the insular treasury an overdraft of about ₱666,154.59 for the current expenses of the city. In general it may be said that the financial situation of the city of Manila demanded the utmost economy, and this was exercised by the board.

During the year 1914 the overdraft was reduced by the sum of ₱617,017.14, showing the excellent care and attention devoted by the board to this end. Among the economies adopted were the reorganization of several of the city departments and the reduction of the salaries of the higher-paid officials, including those of the board members themselves, in accordance with the general plan adopted by the insular Legislature for insular officials.

While a normal program of public works was put into effect during the year 1914, it is obvious that the growing demands of the people of the city of Manila for public improvements, such as the dredging of esteros, the creation of new sanitary barrios, the extension of streets, and the building of bridges can not be undertaken unless new sources of revenue are obtained. The undersigned has on several occasions urgently recommended to the Legislature the enactment of a special assessment law similar to that in force in the large cities of the United States to make the burden of new public improvements fall primarily upon the holders of property principally benefited by such works. Until this is done it is not believed that the city of Manila can keep pace with the just expectations for large public works and the proper demands of its residents.

The work of the city departments—police, fire, schools, and engineering—has been highly creditable and must be commended. Particular mention is due the police department for its efficiency in the protection of public and private property and in its complete freedom from scandal or just reproach. Attention should also be called to the excellent work of the police in caring for the sufferers from the great September flood. In this connection the city engineering

department is to be commended for the rapid replacing by a temporary structure of the Bridge of Spain, which was practically destroyed by the flood, and for the fact that the new temporary bridge was built by administration at a saving of ₱15,445 under the lowest bid submitted by contractors. The entire cost of the new temporary structure was but ₱22,555.38.

The amount appropriated by the board for public schools in the city of Manila is regularly increased year by year.

PHILIPPINE BOARD OF THE PANAMA-PACIFIC INTERNATIONAL EXPOSITION.

The Panama-Pacific Exposition is now in progress and a complete report of the work of the Philippine board will not be available until the end of the exposition. Visitors to the exposition speak in high terms of the Philippine exhibit, and for this success the board itself, the bureaus of education, public works, science, health, forestry, agriculture, and the Philippine library, as well as the provincial and private exhibitors, are to be commended. The constabulary band, with the consent of the secretary of commerce and police, pursuant to authorization of the Legislature, was sent to the San Francisco exposition in December, 1914.

BUREAU OF AUDITS.

The activities of the bureau of audits during the year 1914 have been marked by increased efficiency, accompanied by reduction in expenses and extension of participation in the work of audit to Filipino employees, according to a plan worked out for this purpose by the new auditor. The insular auditor has, in addition, been in constant communication with the Legislature, advising both houses of the financial condition of the treasury, with a view to assisting in the preparation of the appropriation bills in the form of which he has moreover suggested various improvements.

EXECUTIVE BUREAU.

The report of the executive secretary, published separately, covers fully the work of the bureau during the year 1914, and it is necessary to refer only to a few of the many subjects covered. In an increasing degree the provincial governments are encouraged to more complete exercise of the powers of self-government and to be accustomed to less active supervision by the executive bureau. The executive secretary nevertheless takes a careful interest in the operation of provincial and municipal governments, and especially in the vigorous campaigns against rinderpest and locusts has had occasion to visit many of the localities afflicted. With a few exceptions, in which disciplinary measures extended to the suspension of the municipal presidents at fault, the people of the various sections cheerfully and uncomplainingly devoted their time to a vigorous campaign against these agricultural pests. It is now perfectly understood that the locusts while in the hopper stage can be destroyed before any serious damage is done, but no method has yet been devised of killing the pests when they have reached the flying stage. It is thus of vital

importance that vigorous action be taken in regard to locusts as soon as they appear from the egg. Moreover, it is recommended that the insular government should organize locust-extirpation forces in the wild and unsettled regions of the Philippines, so that the eggs of the locusts may be located and destroyed before hatching. It is too much to expect that the inhabitants of settled localities shall without organization and compensation forsake their own agriculture and enter upon locust extermination in the distant and uninhabited localities where the insects usually are hatched. The public lectures of former Executive Secretary Ignacio Villamor and the active campaigns of Col. Wallace C. Taylor, of the constabulary, have done much to call this situation to the attention of the people.

Rinderpest is a great and ever-present menace to the agricultural welfare of the islands. In practice it was found unsatisfactory to attempt military quarantine by the insular government. Many times the size of the present establishment of constabulary would be required, and at times the whole of their effort would have to be devoted to the quarantine. The full cooperation of the people themselves in the eradication of rinderpest is the only practical method of quarantine, and by increasing education on the subject, as well as ceaseless efforts to keep the people alive to the danger, this cooperation is gradually coming about. During the year 1914, 3,940 cases of rinderpest were reported in the islands, as against 4,972 cases in the year 1913, 3,091 cases in the year 1912, and 2,516 cases during the period July 1 to December 31, 1911. Act No. 2303 of the Legislature, giving to the provincial boards the responsibility in this matter, invites the fullest assistance from the localities affected, and as followed up by ceaseless vigor on the part of the insular and provincial authorities will, it is believed, greatly improve the situation. In this connection the new system of inoculation adopted has proven of great success in the provinces of Pampanga and Iloilo, and as funds are available will gradually be extended to other provinces. It is noticeable also that the virulence of the disease is gradually wearing itself out and that the proportion of deaths in recent cases is diminishing. Until rinderpest is brought under full and complete control, agriculture in the islands can hardly be restored to the prosperous condition which existed many years ago. Not until rinderpest is eradicated will the people of the Philippines become once more exporters instead of as now importers of rice, the staple food supply of a majority of the inhabitants.

For more than two years the commanding general of the Philippine department permitted the use of the Philippine Scouts by the insular government for the purpose of assisting in the animal quarantine, which is imposed in an effort to suppress rinderpest. The Philippine Scouts rendered excellent service, and their work was thoroughly valued by the officials of the government, and their un-failing courtesy and thoughtfulness was appreciated by the people of the municipalities in which they served on this never-popular duty, as is evidenced by many resolutions from municipal councils thanking the officers and enlisted men of the scouts for their efforts. After a conference by the Governor General, the secretary of public instruction, who has direct control of the rinderpest operations, and officials of the bureau of agriculture and the officers commanding

the battalion of scouts used on rinderpest quarantine duty it was decided, on the recommendation of all, that the scouts be withdrawn inasmuch as after two years of operation it was felt no considerable improvement was noticeable. This, however, was in no way attributable to failure on the part of the scouts to do all that was required of them.

The Governor General desires here to make of record the thanks of the Philippine government to the commanding general, Philippine department, and to the officers of his command for the services rendered.

The executive secretary is also charged by law with the duty of conducting the new census of the islands.

The first and only census was made in 1903, and, owing to confused conditions existing in the islands at that time, it is believed the new census will be more accurate and will show a greatly improved general condition. The finances of the government did not permit of the census being taken, as was hoped, early in 1915, but it is expected that next year the work will be accomplished. Meanwhile the executive secretary and his assistants in the census work have prepared a thorough and satisfactory plan for the census.

It is of peculiar importance in the Philippines that a census be taken as soon as possible. Here, as in the United States, the apportionment of popular representatives is based upon population, as are also the distribution of insular financial aid to provinces and the apportionment of the provincial share of the internal-revenue tax. As before stated, the first census is believed to have been imperfect, owing to conditions which prevailed at the time it was taken. In addition to this, without doubt there has been a considerable increase in population since 1903, and such increase is probably greater than the normal increase in the United States, owing to the fact that comparatively greater strides have been made in the past 11 years in the control of diseases which have worked havoc in the Philippine Islands heretofore, while in the United States similar diseases have been well under control for several decades past.

The executive bureau has likewise taken an active part in the food-production campaign made necessary not only by the temporary paralysis of commerce incident to the breaking out of the European war but also by rinderpest, locusts, flood, and finally the great drouth of 1914. The bureaus of education, constabulary, and agriculture conducted an active campaign to induce the people to plant quick-growing food crops, which was attended with most satisfactory results.

One of the most important works of the executive bureau is the reassessment of land values throughout the provinces for the purpose of taxation. Most gratifying results have already been shown, and the revenues of the provinces and municipalities will be greatly increased in consequence. In a large proportion of cases land had been left unassessed or had been assessed far below its proper value.

The total number of taxable parcels registered in the tax registers in the Philippine Islands on January 1, 1914, was 1,953,032, as against 2,151,627 on December 31, 1914, an increase of 198,595 parcels.

The total number of exempt parcels in the Philippines on January 1, 1914, was 476,645, as against 488,475 on December 31, 1914, an increase of 11,830.

The total valuation of taxable real property carried in the tax registers in all the provinces of the Philippine Islands on January 1, 1914, was ₱301,895,852. These figures were increased on December 31, 1914, to ₱370,132,704. The total valuation of exempt property on those dates was ₱57,888,931 and ₱70,405,739, respectively, an increase of ₱68,236,852 in taxable property and ₱12,516,808 in exempt property.

The foregoing figures do not include the city of Manila, the department of Mindanao and Sulu, the provinces of Palawan, Mindoro, Nueva Vizcaya, Batanes, and the Mountain Province where the general land-tax laws are not applicable.

The additional annual revenue resulting from the increase of ₱68,236,852 in taxable valuation will, beginning with the year 1915, be as follows:

Provinces:		
General fund	₱170,842.12	
Road and bridge fund	85,421.06	
		<u>₱256,263.18</u>
Municipalities:		
General fund	170,842.12	
School fund	170,842.12	
		<u>341,684.24</u>
Total		597,947.42

Another feature of the work of the executive bureau is the supervision of loans of the insular trust funds, namely, the insurance fund, the public works bonds sinking funds, the friar lands bonds sinking fund, and the gold standard fund. Loans from the first three funds bear interest at the rate of 4 per cent per annum; those from the gold standard fund at 3 per cent per annum. The law permits the lending of the above funds to provinces and municipalities for permanent public improvements, which are construed to be market buildings, slaughterhouses, municipal buildings, municipal and provincial school buildings, provincial capital buildings, bridges, artesian wells, waterworks, and sewers, and also, expressly, cadastral survey work. During the year 1914 the repayments of loans previously granted, excluding interest, amounted to ₱1,056,873, and new loans in the amount of ₱1,490,000 were granted during the year for the following purposes and in the amounts shown:

Provincial:		
Roads and bridges	₱469,000	
Provincial schools	25,000	
Provincial capital buildings	134,000	
Provincial telephone system	7,000	
Total provincial		₱635,000
Municipal:		
Market buildings and slaughterhouses	₱526,000	
School buildings	66,500	
Municipal "presidencias"	13,000	
Waterworks	85,000	
Bridges	17,300	
Total municipal		707,800
City of Manila:		
For public works and improvements in the city of Manila		<u>147,200</u>
Grand total		1,490,000

On January 1, 1915, there was available in the trust fund for loans ₱627,038.82, and during the year 1915 the repayments of loans, excluding interest, will amount to ₱1,145,170.30. Each of the projects for which loans are made is carefully investigated and must be favorably recommended by the executive office before the loan is made.

The report of the executive secretary also shows the gradual filipinization of the 43 provincial and 757 municipal governments, which in the case of the latter is almost complete. In 1914 there were 37 American and 134 Filipino provincial officials, as against 40 and 113 in 1913, while in municipal offices there were 116 Americans and 13,272 Filipinos, as against 121 and 12,384 in 1913.

Three hundred and eighteen administrative cases against municipal officers and justices of the peace were handled by the bureau in 1914, and the action taken by the executive is shown in his report. Eight hundred and nineteen municipal presidents were in office in 1914, and 12 were found guilty of offenses requiring removal. Of the 733 justices of the peace, 13 were tried and removed; and of the 541 auxiliary justices of the peace, 4 were tried, of whom 3 were removed and disqualified. Of the 634 municipal treasurers, only 1 was tried and removed.

The report of the executive secretary shows that the expenditure by the insular government in the form of insular aid to the provinces was increased to the amount of approximately ₱1,000,000. This is in large measure due to the reduction by the Legislature of the amount of surcharge by the bureau of public works to the provinces from 6 to 3 per cent in the appropriation bill of January, 1914.

From the executive secretary's report it appears also that the expenses of government of the 36 provinces of the islands increased in all about ₱1,000,000 in 1914 over 1913. It is found upon examination that this increase is in part explained as follows:

(a) New cost of revision of land assessments, approximately ₱300,000.

(b) Increased participation of both provinces and municipalities in the extension of district health organizations.

(c) Increased participation in the expense of public education.

(d) Administrative expense, ₱131,000.

A further apparent increase is due to a change in subprovincial bookkeeping.

There are six subprovinces in the Philippine Islands attached to regular provinces for administrative purposes, it being much more economical to administer them in this way than for each to have a complete set of officials. Under the law 30 per cent of the collections in each subprovince go to the province to which it is attached in payment of the expenses of administration. Heretofore when taxes were collected 70 per cent was credited directly to subprovincial funds and 30 per cent directly to the provincial funds of the province to which attached. Under changed bookkeeping methods prescribed by the insular auditor the entire amount collected in a subprovince is now first credited in toto to subprovincial funds and then the amount due the province is transferred, thereby constituting a payment which appears as a disbursement. This is, of course, balanced by a corresponding amount being taken up by the province

as a receipt. The practical result is that while the disbursements are increased a certain amount, the receipts are also increased exactly the same amount, and there is no increase of actual expenditures for 1914 over the amount expended in 1913.

BUREAUS OF EXECUTIVE DEPARTMENTS.

The other bureaus and offices of the government are assigned to the supervision of the several secretaries of department and their operations for the period under discussion are fully set forth in the reports published herewith. It is necessary, therefore, only to make special reference to certain matters calling for particular attention.

DEPARTMENT OF THE INTERIOR.

Under the secretary of the interior are the bureaus of health, lands, science, forestry, and weather.

BUREAU OF HEALTH.

This is one of the most important divisions of governmental work and one in which the public, both in the United States and in the Philippines, has evinced the most interest. Inasmuch as before the arrival of the secretary of the interior on March 2, 1914, the undersigned was acting secretary of the interior, he was able, both during that period and subsequently, to come in close touch with the development of health work in the islands. Dr. Victor G. Heiser, for so many years the director of health, had, as elsewhere mentioned, left the insular service for a wider field of work with the Rockefeller Foundation, and upon his recommendation his fellow member of the United States Public Health Service, Dr. John D. Long, was appointed director of health. It is confidently expected that Dr. Long will ably carry on and extend the work initiated by Dr. Heiser. The bureau has under preparation, moreover, extensive plans for new health and sanitary work in the provinces, which will receive an increasing amount of the time and attention of the director. Under the supervision of the bureau of health and the bureau of quarantine service Manila has become one of the most healthful cities in the Far East, and outbreaks of the cholera and the plague, which are epidemic in certain neighboring countries, are speedily and successfully handled by the health authorities at Manila. Many of the fatal diseases so common in the United States are infrequent or almost unknown in the Philippines. The Philippine General Hospital takes its rank with the finest institutions of its kind elsewhere, and the Legislature has shown every interest in appropriating for its work and for health work in general. Vaccination is general throughout the islands, and smallpox, which used to cause 30,000 deaths annually, is now almost unknown, although a small outbreak occurred in the province of Samar in 1914. The time has now come, having the support of the people who are accustomed to and admire the efficiency of the health work in the city of Manila, for a vigorous extension of similar health measures throughout the islands. A prime factor in this campaign is the rapidly increasing number of artesian

wells, so that already a majority of the municipalities are enjoying a good water supply. This is not only a preventive of active disease, such as cholera, but of many slower and less frequently fatal infections of the intestines. In some municipalities where artesian wells have been drilled the death rate has been observed to drop 50 per cent. A system was begun and put into practice during 1914 by which quinine was sold at cost price by the municipal treasurers, it having been found by experience that inferior quinine at high prices had exposed the people to the ravages of malaria. Another health measure was the passage by the Legislature of a bill prohibiting the publication of misleading advertisements, by which it is hoped the use of fraudulent patent medicines may be prevented. During the cholera epidemic in the Luzon provinces in the summer of 1914 excellent assistance was rendered by Dr. Edward Earl Munson, United States Army, who, in the absence of Dr. Heiser on vacation, acted in an advisory capacity to the secretary of the interior on health matters. He received the most thorough support from the administration in all of his requests for assistance.

It is believed that the health officer should be the first man to follow the establishment of peace and order in the non-Christian sections of the islands. By this means the confidence of the people is more easily obtained and a firm basis established for the future work of civilization. It is hoped, therefore, that the Legislature will continue its enthusiastic support of health work by furnishing adequate and constantly increasing funds for the spread of the knowledge of sanitation among the non-Christian peoples.

The greatest problem which lies before the bureau of health today is the prevention of the unnecessarily high rate of infant mortality. Over 60 per cent of the infants born in the Philippines fail to reach the age of 5 years, many of them dying of probably preventable causes. This is not only distressing to the sense of humanity but it is a serious economic weakness in the islands. The island of Java alone, smaller than the island of Luzon in territory, contains more than three times the population of the entire Philippine Islands. When the government shall have solved the problem of infant mortality it will have conferred the greatest blessing possible upon the Filipino race.

THE MOUNTAIN PROVINCE, NUEVA VIZCAYA, PALAWAN, AND MINDORO.

The work of the secretary of the interior in the Mountain Province maintains and continues with notable success the excellent foundation laid by former Secretary of the Interior Dean C. Worcester. Peace and order among the people of the Mountain Province are most satisfactory; increasing numbers of non-Christians traveling from one subprovince to another and to the plains below clearly demonstrate a growing sense of confidence and security; the construction of trails and school buildings and of irrigation works continues; a marked advancement in education and sanitation is recorded for the year 1914; and particular interest has been taken in agricultural and industrial development. It is impossible to speak too highly of the work of the personnel of the Mountain Province, who at their lonely stations and generally upon their own initiative

and resources are called upon to deal with the vital problems of daily life among a large and but partly civilized population. That the work of government and civilization is being carried on by them without bloodshed and with so little friction, marks a notable record in the work of the American people in the Philippines.

Particular attention is invited to the work accomplished by the secretary of the interior and his staff in promoting friendly relations between the people of the mountains and the Filipinos of the plains. By this policy the isolation in which the mountain people were left for so many generations will gradually be removed and the way opened for a more rapid spread of civilization. By this means, also, the distrust heretofore reported to exist between the hill people and the civilized people of the plains will be eliminated and a feeling of mutual regard and respect will be engendered. It is obvious that common feelings of nationality and common sense of responsibility among the peoples of the Philippines can only be secured by bringing them into association and contact with each other; maintaining and strengthening the barrier which has in the past been erected between them will not serve.

The leper colony at Culion continues to be improved, and additional facilities have been devised for the comfort and recreation of the colonists. The leper problem has received the most earnest attention of the secretary of the interior, and a recent report from Dr. Heiser and Dr. Mercado indicates that a specific for leprosy may have been discovered.

BUREAU OF LANDS.

Eight years, on an average, has up to the present time been required for securing a patent on a homestead on public lands of the Philippines. Some part of this delay has been correctly traced to administration, and reforms have now been made which will shorten the period considerably. Nevertheless, it is obvious that the work of homesteading is proceeding too slowly for the general public interest. Amendments to the public land laws are essential, and can be made by the Philippine Legislature if given that power, as proposed in the pending bill in Congress. Aside from the legal or administrative difficulties of securing a homestead right, the settler or claimant, being upon the public lands, is known to be often hampered by the large proprietors of his immediate vicinity. Everything is being done and should be done to counteract this evil and to encourage the people to take out homesteads and show them their rights in the premises.

The administration of the collection of the rents received from the friar lands has never been entirely satisfactory to the government, the bureau of lands being in arrears from year to year in the following amounts: In the year 1909, when the sales began, the delinquencies were ₱99,000; in 1910 this was reduced to ₱90,000. In 1911, owing to drought, the bureau fell ₱210,000 behind, making a total delinquency of ₱300,000. In 1912, again owing to drought, it fell ₱276,000 still further behind, increasing the total delinquency to ₱576,000. In 1913, which was a year of exceptionally good crops, it collected an amount equal to the current obligation, and reduced

the accrued delinquencies by ₱36,000 to a total of ₱540,000. In 1914, which has been a year of exceptionally bad crops, it has again fallen behind to the extent of ₱280,000 (about the same amount as 1912), making a total of accumulated deficit for all these years of ₱820,000.

While many of these arrears are entirely unavoidable and, indeed, based upon conditions which are impossible to escape, such as droughts, floods, insect pests, and other causes for the failure of crops, it seems to the undersigned that there may be some radical defect as an underlying cause of delay in the collection of rents. At the time that the friar lands were purchased by the government a question of apparent great political significance was solved, and it is probable that the price paid was more liberal than would have been the case in a strictly business undertaking. Therefore, to fix rents and sales prices with a view to early reimbursement of such a capital investment may possibly have aided in defeating the rapid taking up and cultivation of these lands. There is ground for believing that the rents and sales prices in some places are too high and that arrears are not to be avoided unless some more equitable basis of fixing them can be brought about. The matter is being investigated and considered by the secretary of the interior and the director of lands. A solution will probably be found in extending the term of payment, so that the annual installments will be decreased.

Another subject which calls for comment is the work of the cadastral survey. The director of lands has estimated that it will cost ₱50,000,000 to complete the cadastral survey of the islands. Under the law the insular government and the provincial governments assist the landowner by the payment of a portion of the cost of survey and a loan for most of the balance. Additional facilities were given by Acts Nos. 2344, 2356, and 2368, passed by the Philippine Legislature on February 28, 1914, by which the trust funds of the government were made available for loans to provinces and municipalities for the payment of their shares of the cost of cadastral surveys. Nevertheless, the work is not proceeding with sufficient rapidity, and the bureau of lands is studying the question of offering further facilities to landowners to secure cadastral titles. While the system of cadastral survey was first initiated in 1910, the law was passed in 1912, so that an accumulation of cases was suddenly thrown on the courts. The reorganization of the courts of first instance is intended to expedite the registration of land titles by taking the work away from five judges in the court of land registration and distributing it among the judges of the courts of first instance. This new arrangement was in force for only the last six months of 1914, but the results so far indicate the necessity, in several provinces, of greatly increased attention to cases of land registration by judges of first instance. The matter becomes one of great importance when judged from the point of view of the borrowing capacity of the landowner. A man with a cadastral title can secure loans by mortgage from the Agricultural Bank or from other sources of capital and thus obtain the money to extend his agricultural operations. Those, however, who have not yet been able to obtain a cadastral or other valid title are at the mercy of money lenders, who extort from 30 to 60 per cent annual interest on their loans.

The bill which became Act No. 2508 of the Legislature of December, 1914, authorizing the establishment of cooperative agricultural associations under government supervision for the purpose of lending money to the farmers, after the model of similar rural-credit associations in Germany and Italy, can hardly become of much effect unless an anti-usury law be passed by the Legislature. It is recommended that the Legislature further encourage the lending of money to the farmers under governmental direction. If the farmers of the Philippines are to await the completion of the cadastral survey, at the present rate of progress the work will be of little practical use to the majority of the men of this generation. In any event the capital of the Agricultural Bank should be largely increased by the Legislature; if possible by transfer from other capital accounts, rather than by appropriation for current revenues.

Vast areas of the public lands in certain sections of the islands are uninhabited, while other portions of the Philippines are overpopulated. The government is successfully undertaking the transfer of numbers of persons to the unoccupied sections of the Philippines under a system of agricultural colonies, affording them facilities for starting life anew in the sections to which they have been moved. A new experiment was started in 1914, when the agricultural colony at Momungan, Mindanao, was founded, with ₱100,000 of government aid by way of loans, to be repaid in convenient periods. Some 46 unemployed Americans, former employees of the army, navy, or insular government, with their Filipino families, were colonized under the direction of the bureau of agriculture at Momungan, half-way between Overton and Keithley, in a climate adapted to outdoor labor by Americans. The first year of operation indicated unqualified success, and measures have been set on foot to found another similar colony consisting of former employees of the quartermaster department of the army and others now unemployed with Filipino families dependent upon them.

The agricultural colonies at Cotabato, composed of Filipinos selected chiefly from among the densely populated districts of Cebu, experienced a complete crop failure on account of the drought in 1914.

BUREAU OF SCIENCE.

The work of the bureau of science is of great importance to the people of the Philippine Islands. The problem for administrators is how to turn the results of scientific investigations into practical daily use. Research work of an ethnological nature or of interest solely to the scientific world should be undertaken and conducted by private enterprise rather than by governmental agencies. The most valuable work which can be done by the bureau of science is in connection with agricultural development and sanitation. Particularly in relation to its bacteriological work the bureau of science receives and should receive the complete support of the government. In its agricultural research work there appears to be some duplication of work by the bureau of agriculture, and a plan is being considered for consolidation of this feature of the work of the bureaus of science, agriculture, and education and the University of the Philippines.

BUREAU OF FORESTRY.

The excellent and solid development of the forest resources of the Philippines is a monument to the work of the bureau of forestry. Increased appropriations were given this bureau in 1914 and again for the year 1915, upon the well-established principle that each increase in the appropriation increases the revenues received from the bureau. By giving, in December, 1913, to the Kolambugan Lumber Co., in Mindanao, a concession to work the forests there, the government has opened up a new prospect of establishing the more valuable Philippine lumber in the world markets. The only point at which the work of the bureau of forestry might invite criticism under the present laws is that at which the bureau touches upon the administration of the homestead laws. It is recommended that a liberal interpretation of the law be made by the bureau in order to encourage homestead settlers.

During the year the Department of Commerce of the United States has called our attention to the increasing demand for rattan in the United States and the fact that the Philippines are the greatest natural home of the rattan growths. In fact, it seems probable that a considerable part of the "Borneo rattan" of commerce really comes from the Philippines. An investigation by the bureau of forestry discloses the fact that a steady and growing demand awaits the enterprise of business firms in the islands in organizing the collection and transportation of rattans. The industrial shops in Bilibid will also furnish a considerable demand for home consumption.

Minor forest products, such as gum kauri and damar, and the oil from the nut of the lumbang tree, known commercially as China nut oil, all of which are used in large quantities in the varnish trade in the United States, are found in abundance in the Philippines and await business enterprise here.

Well-organized and well-managed lumber companies in the Philippines enjoy to-day a demand market which exceeds their power to supply.

A return to the former system of collection of the forest revenues is advocated, by which the bureau of forestry itself assessed and collected its income, following the custom in the United States and other countries. This would put the authority and responsibility in the hands of trained foresters and would undoubtedly increase the revenues of the Government.

WEATHER BUREAU.

Under the direction of Father Algue, S. J., the weather bureau continues to be the most scientific and useful institution of its kind in the Orient.

The weather bureau of the Philippine government is one of the greatest humanitarian agencies in the Far East. It is the sole source of advice of approaching typhoons for China, Hongkong, and the islands of the Asiatic archipelago, and to its cabled warnings of approaching typhoons may be attributed the saving of numbers of lives on the high seas of the Orient.

GAME LAWS.

Mention should also be made of the establishment by the secretary of the interior during 1914, pursuant to law, of closed seasons for the protection of the game birds and animals of the Philippines, a measure rendered necessary by the rapid depletion of the game of the islands.

DEPARTMENT OF COMMERCE AND POLICE.

After the resignation of Acting Secretary of Commerce and Police Frank L. Branagan, in October, 1913, and until the arrival of Secretary Clinton L. Riggs, on February 23, 1914, Commissioner Jaime C. de Veyra acted as secretary of commerce and police.

The department of commerce and police comprises the following bureaus: Constabulary, public works, posts, coast and geodetic survey, and labor.

PHILIPPINE CONSTABULARY.

Changes in the personnel of the constabulary have already been discussed herein above. The Legislature dealt most liberally in the appropriation for the constabulary in the appropriation bill of January, 1914, and again in 1915. A constabulary academy was founded at Baguio January 31, 1914, and has proved of much service in securing officers for admission as third lieutenants. The esprit of the constabulary corps continues to be most excellent, and officers and enlisted men alike, both in their military and civil duties, are entitled to the highest commendation. Many of the officers of the constabulary are detailed on special governmental work throughout the islands, and in the opinion of the undersigned the constabulary appropriation should be reimbursed for the salaries of these officers who are not occupied in strictly constabulary duties. The Legislature has failed to pass an act providing for a retirement and pension fund for the constabulary, but a voluntary fund has been established by an assessment upon the pay of the officers and men, and under the operation of this, in addition to several of the enlisted men, two of the highest officers of the constabulary were retired for ill health in 1914 on a very generous pension, limited, however, to a five-year term.

A great deal of time and attention of the constabulary has been devoted during 1914 to the detention and apprehension of the agitators of the so-called Ricarte movement. The matter is discussed at length in the report of the secretary of commerce and police. On Christmas eve, 1914, a demonstration was made by the Ricarte organization, resulting in the apprehension of a number of persons by the police in the city of Manila and by the constabulary in an adjoining province. The participators in the Ricarte disturbances were among the most ignorant and low class of persons, and no one of importance was found to be concerned. They possessed no fire-arms and inflicted no personal injuries, and those in Manila surrendered immediately upon the firing of three shots in the air by the police. From his safe position in Hongkong Ricarte has for several years past been appealing to his ignorant followers in the Philippines to rise against the government. At the same time Ri-

carte agents collect considerable sums of money from these deluded persons in the Philippines by the sale of "commissions" in his so-called army at prices ranging from 50 cents to \$5, and this seems to be the principal motive of the Ricarte organization. It appears probable that the demonstration on Christmas eve came as a result of the impatience of the persons whose cupidity had been aroused by Ricarte agents and who resented an endeavor to postpone again the date fixed for disorder and robberies. A similar so-called uprising occurred in Zambales early in September, 1913, and vigorous and successful attempts have been made by the constabulary to bring to trial those responsible for these abortive disorders. The overt act in the botanical gardens and in Rizal Province was undoubtedly due to the rash and uncontrollable leadership of one Timoteo Cariaga, a fugitive from justice on the charge of homicide, and naturally a desperate man. His followers were apparently misled by promise of support from sources from which support was not forthcoming and had not at any time been possible.

BUREAU OF PUBLIC WORKS.

A considerable reorganization and reduction of the force of this bureau was undertaken in 1914, as elsewhere detailed. Nevertheless the bureau was able to carry on with great efficiency the public works program of 1914 and likewise to undertake the large program of public works for 1915, with one exception the largest in the history of the Philippine government. Road building of the most scientific kind is rapidly extending throughout the islands and linking up the sections of first-class road from province to province. Attention is paid to the needs of the islands as a whole, and special stress is laid upon the opening up of country agriculturally productive or susceptible of immediate agricultural settlement. Immediate beneficial results are noticeable.

The most notable new road construction beside the opening of the Manila North Road through the potentially rich lands of Nueva Ecija, was the initiation of the building of the Naguilian Road to connect Bauan on the west coast of northern Luzon with Baguio. The famous Benguet Road connecting the summer capital of Baguio with the plains has been the subject of much controversy. Originally projected at an estimated cost of ₱150,000, the total cost of construction of the 45 kilometers was eventually nearly ₱4,000,000. The Benguet Road was opened to traffic in the latter part of the fiscal year 1905 and since that time the cost of maintenance and of restoring the road after the storms ran generally between ₱160,000 and ₱350,000. The reason for the high cost for maintenance and repair was that the Benguet Road follows the course of a deep canyon down which the tropical rainfall is precipitated in enormous volumes, frequently causing the river to rise 50 to 60 feet from its bed and tearing out bridges and engulfing the road. In November, 1913, a committee of the Commission, composed of Messrs. Singson and de Veyra, made a careful investigation of the route and recommended the construction of what is commonly known as the Naguilian Road, to replace the Benguet Road and avoid the necessity of the large annual appropriations for repair of the latter. The Naguilian Road

lies for the most part near the top of a ridge, and although slightly longer than the Benguet Road will be subject to far less destruction by the elements. Two bridges are planned for the Naguilian Road, one over the Naguilian and one over the Ripsuan River at the foot of the mountains, but it is not intended to undertake the construction of these for the time being, since collapsible or floating bridges will serve the purpose of the traffic during the rainy season. In accordance with the recommendation of Messrs. Singson and de Veyra the Commission appropriated ₱100,000 for the new work necessary, which was commenced in February, 1914. In March, 1914, an additional ₱135,000 was appropriated and in September, 1914, ₱60,000; so that during the fiscal year 1914 it was estimated that about ₱300,000 had been spent on the road, which will be completed during the present year. Meanwhile the Benguet Road has been kept in safe condition for the traffic from Baguio, but the only repairs now made are of a provisional nature. Upon the request of the residents of the city of Baguio the government initiated the collection of tolls on the Benguet Road to pay for the cost of keeping the bridges there in safe condition until the time came to divert the traffic to the Naguilian Road. At the present time the Benguet Road is maintained entirely through toll receipts. If the Benguet Road were to be kept open permanently, there would be necessary in the very near future a heavy expenditure for new bridges. It is not believed that the traffic of Baguio will necessitate more than one road, so that the Naguilian will soon replace the Benguet Road.

BAGUIO.

In a discussion of the Naguilian road the subject of the use of Baguio as a summer government presents itself. In the winter of 1914 the Legislature discontinued the appropriation for transferring the bureaus of the government to Baguio during the heated period. This was done to save the annual expenditure averaging ₱170,000 customary for the Baguio exodus. At the same time the teachers' camp, numbering about 350 teachers, was held as usual in Baguio for about six weeks. At no time in the past had the whole government force been transported to Baguio, and at no time had the whole personnel of the insular government shown a desire to go to Baguio. Expense, domestic arrangements, and other elements had entered in, as well as the fact that the high altitude of Baguio (4,500 feet) did not agree with the health of all, though beneficial to the majority. Nevertheless, the employees are still encouraged to take their 28 days' vacation leave each year in Baguio if they desire.

The future of Baguio as a health resort seems assured, and it is confidently believed the fame of Baguio will increase and will attract a growing number of visitors from the islands and from near-by colonies as the years go on. The construction of the Naguilian road and the pending construction of the railroad to Baguio will still further reduce the cost of living there and facilitate the transportation of visitors. The finances of Baguio are now in an improved condition and the primary expenditures for public works have been satisfactorily completed. It is believed that further public improvements, in addition to the construction of an adequate water

supply, should comprise improved roads, trails, and telephone systems to the outlying districts of the Mountain Province. Not only as a health resort, but also as the commercial capital and center of distribution of the Mountain Province, Baguio will soon be independent of the need of insular-government aid.

Various measures have been under consideration for the encouragement of the tourist traffic of the Philippines. The enormous economic benefit to Japan, for example, of the tourist trade encourages us to wish that the Philippines might have their share. The natural beauties of these islands, their romantic history, and their great modern development should engage the attention of all tourists who visit the Orient. The problem has been how to care for the transportation and comfort of visitors. The Manila Hotel now supplies modern accommodation in the capital city, while the linking up of the adjacent provinces by first-class roads already affords or soon will give opportunities by automobile for visiting Pagsanhan, Atimonan, Taal, Sibul, and other famous scenic or health resorts. The government should offer assistance for the construction and maintenance of small but comfortable hotels at these and other points. Particular attention is invited to the unrivalled system of trails in the Mountain Province, most of which are accessible to travel by vehicle or by horse, while comfortable rest houses are being rapidly constructed throughout the mountains.

The road program of 1914 was normal, but owing to the economies necessary that year the construction of insular public buildings was restricted. By means of loans from insular trust funds, however, a practically normal building program was possible in the provinces and municipalities. The program for 1915 contains large provisions for insular public buildings. The work of drilling artesian wells proceeds as rapidly as the equipment of the bureau permits, as does also the construction of waterworks for the larger cities of the Philippines. Iloilo stands most in need of a modern waterworks, but the engineering difficulties entailed have up to the present time prevented the adoption of a plan for this city. At the present writing, the springs and upland water courses of Guimaras Island appear to be the most feasible source, by piping 3 kilometers under the straits to Iloilo. Generally speaking, pure water is the most important benefit that the bureau of public works can give to the population of the Philippines, and the bureau has been well supplied with funds by the Legislature for this purpose. Irrigation work on a large scale has been suspended pending the adoption of a comprehensive plan throughout the islands. Large irrigation projects can not be undertaken, of course, without a bond issue, but irrigation by small cooperative associations, aided by the government, may solve the more pressing problems.

BUREAU OF POSTS.

The bureau of posts is constantly extending its service into new communities and is therefore steadily increasing the number of its employees. The chief problem of the bureau at the present time is the substitution of wireless stations for the present submarine cables, which are costly to maintain and subject to frequent inter-

ruption. It is recommended that an interisland wireless system be installed as rapidly as possible.

BUREAU OF COAST AND GEODETIC SURVEY.

The work of this bureau is paid for 65 per cent by the United States Government and 35 per cent by the Philippine government. It is of the utmost importance to the commerce of the islands as well as to foreign commerce, and Congress generously contributed its share for the years 1914 and 1915.

BUREAU OF LABOR.

In addition to the maintenance of four free employment agencies the bureau of labor is charged with the duty of looking after the welfare of laborers in the Philippine Islands. During 1914 the bureau investigated 10 strikes, all of which occurred in Manila and vicinity, and was able to obtain amicable settlements of 4 of them. The bureau of labor also investigates the claims of laborers' wages due them and alleged not to have been received, as well as other grievances against employers. Where unable to arrive at a satisfactory adjustment the bureau assists the laborers to prosecute their claims in court.

The European war has had but little effect upon the employment of laborers in the Philippines. Although by September 1, 1914, out of a total of 44,926 laborers employed in the various commercial and industrial concerns of the islands, 1,448 had been dismissed, by October 1, 1914, there were 45,861 laborers employed in such establishment—an actual increase over the number employed before the war.

The bureau of labor is directed entirely by Filipinos, and has been conducted in a very satisfactory manner.

DEPARTMENT OF FINANCE AND JUSTICE.

This department comprises the bureaus of justice, customs, internal revenue, and the treasury.

BUREAU OF JUSTICE.

The report of the secretary of finance and justice covers fully the work performed by the courts of the Philippine Islands during the period under consideration and the operation of the bureau of justice.

BUREAU OF CUSTOMS.

The customs revenues of the Philippines showed a decrease of ₱1,989,059.10 during the year 1914, as compared with 1913. This is due chiefly to two causes. The Underwood tariff law of October 4, 1913, abolished the export tax on Philippine products, which explains ₱1,325,150 of the decrease above mentioned. The other element of chief importance is the European war, which for the first few weeks after the outbreak entirely paralyzed the foreign commerce

of the Philippines. During the months of August, September, and October, 1914, there was a marked decrease in customs collections in consequence, but subsequently our foreign trade revived and began to run close to the normal level again. Another element which accounts for the decreased customs duties in 1914 is the decreased importation of rice, which indicates a prosperous condition in the rice section of the Philippines during the year under discussion. The imports from the United States, which are duty free under the law, increased proportionately during the year 1914, so that they now represent 50 per cent of our importations, and it is expected that this figure will further increase during the year 1915.

The operation of the bureau of customs was carried on during the calendar year 1914 at a total cost of ₱1,059,275.70, which is ₱207,539.54 less than the total expenditure for similar services during 1913. The foreign-carrying trade showed a slight decrease in the number of vessels under 1913, but the coastwise shipping trade showed increased activity during the year.

The scope of the work performed by the bureau of customs was enlarged by the addition of the division of vessels and lighthouses and the marine railway and repair shop of the former bureau of navigation. The divisions of vessels and lighthouses maintenance of the former bureau of navigation were carried on without any loss of efficiency at a reduction in cost from ₱1,421,477.58 in 1913 to ₱999,581.10 in 1914. In this connection it is believed that the expense of maintenance of the large cable ship *Rizal* is an unnecessary burden on the treasury, and arrangements should be made by the government to dispose of this vessel and secure a smaller vessel of lighter draft and higher speed.

BUREAU OF INTERNAL REVENUE.

The total amount of internal revenue collected during the year 1914 was ₱22,550,109.37, as compared with the total collection during the calendar 1913 of ₱22,184,901.23, an increase of ₱365,208.14. Of this the insular government's share during the year 1914 was ₱10,642,143.25, as compared with ₱10,334,274.13 in 1913.

During the 1913-14 session of the Philippine Legislature Act No. 2339 entitled "An act revising and consolidating the laws relative to internal revenue" was passed. This act was the first of the codes prepared by the code committee presented to the Legislature and was promptly passed by it. It is believed to be a model of taxation law in form and arrangement. In the main, the rates of taxation were not changed by that act.

During the latter part of the year 1914, however, the decrease in customs revenues hereinbefore mentioned presented to the administration the necessity of new sources of revenue to maintain the government, especially since no reserve surplus in the treasury was available for the emergency. Thereupon on December 23, 1914, the Legislature passed Act No. 2432, effective January 1, 1915, imposing increased additional internal revenue taxes upon an estimate that approximately ₱5,000,000 of additional internal revenue would be needed to meet the requirements of the Government during the year 1915. Act No. 2432 imposed new taxes as follows:

An ad valorem tax of $1\frac{1}{2}$ per cent on the gross output of mines.

A specific tax of from 1½ to 4 centavos per liter of volume capacity on motor spirits and refined or manufactured mineral oils.

A specific tax of ₱1 per metric ton on coal.

A privilege tax on opticians.

A privilege tax of ₱8 per annum on manufacturers and wholesale dealers in motor spirits, mineral oils, and lubricating oils.

A privilege tax of ₱20 per annum upon retail dealers in leaf tobacco.

Increased taxes were imposed as follows:

Percentage tax on business from one-third of 1 per cent to 1 per cent, except in the case of common carriers upon whom a tax of 1 per cent was already imposed.

A fixed privilege tax of ₱8 per annum upon persons subject to the percentage tax.

An additional tax upon proprietors of cockpits of 25 centavos for each cockfight.

The tax on owners of race tracks was increased from ₱60 to ₱300 for each day on which races are run.

The tax on distilled spirits produced from palm sap or cane was increased from 25 centavos to 35 centavos per proof liter.

The tax on beer and other fermented liquors was increased from 4 centavos to 6 centavos per liter.

The tax on smoking tobacco was increased from 48 centavos to 60 centavos per kilogram.

The tax on cigars was changed from ₱2, ₱4, and ₱6, respectively, according to the wholesale price, to a flat rate of ₱6 per thousand for all cigars.

The tax on cigarettes weighing not more than 2 kilograms per thousand was increased from ₱1 to ₱1.20 per thousand.

Section 26 of Act No. 2432 and amendments thereto limited the new and increased taxes to the calendar year 1915, thus indicating clearly the emergency nature of the legislation.

The cost of operation of the bureau of internal revenue during the year 1914 was ₱551,795.10, as compared with ₱600,044.26 for the fiscal year 1913 and ₱644,109.24 for the fiscal year 1912.

The report of the collector of internal revenue shows by an analysis of the business percentage tax collection that despite the war about the same volume of business was transacted in 1914 as during 1913. These taxes amounted to ₱2,175,566.11 in 1914, as compared with ₱2,140,936.75 during the preceding year.

Particular attention is being given by the bureau of internal revenue to increasing the export of Philippine cigars and just before the preparation of this report the collector of internal revenue left on a journey to the United States to further these plans.

General trade conditions in the islands have been affected, first, by the world-wide depression of 1912-1914 and later with increased violence by the European war. During the two years preceding the war extensive restrictions of credit were observable in the United States, to some extent traceable to the calling in of investments by the bankers of European countries, apparently with a view to future possible warlike preparations there. Upon the outbreak of the war, and for the month of August especially, complete paralysis of the foreign

trade of the islands resulted. Gradually the credit facilities improved and commerce resumed a more normal volume. The complete tying up, however, of the enormous fleet of German merchant vessels was a heavy blow to Philippine commerce, since an increasingly large portion of our commerce was with the German Empire and possessions. Considering the severe effects of the war upon the commerce of other countries it may be said, however, that the Philippine Islands are comparatively fortunate. Some apprehension existed during August and September of 1914 as to the markets for our staple products and the prices of copra and hemp fell for a short time to the lowest figures known in a generation. But a demand soon made itself felt from the United States and from some of the belligerent countries for our products and copra and hemp rapidly resumed a price but little below the average. The closing of the world's markets to European sugar created a shortage in the sugar supply and the high prices which resulted in the New York market are a source of great benefit to the sugar planters of the Philippines. While the high price of to-day is no doubt temporary, for some time to come the sugar producers of the Philippines will enjoy considerable prosperity. The government in 1914 renewed the deposit in the Bank of the Philippine Islands properly guaranteed, made first in 1913, of the sum of ₱2,000,000 to be lent by the bank to the sugar producers at a rate of interest not exceeding 8 per cent. This was for the purpose of enabling the planters to recover from the effects of the drought of 1912 and to finance their large crops. In 1914 the increase in sugar exports in the Philippines over the preceding year amounted in value to over ₱8,000,000, which should be largely increased in 1915, during which year a similar sum of ₱2,000,000 will be deposited in the bank to aid agriculturists. During the year the sum of ₱600,000 was also deposited with the International Banking Corporation to be lent to the Mindoro Co., the deposit being guaranteed by the bank, which in turn is guaranteed by the company's assets, estimated at more than ₱4,000,000, already invested in the Philippines.

Copra production, although of rapidly increasing volume, would be more profitable to the planters if the method of drying the copra were in better conformity with the demands of the consumers. Philippine copra brings the lowest price of any produced in the large copra-producing sections of the world, due entirely to the fact that our product is improperly dried and prepared for market. Nevertheless, the increasing use of coconut oil in the world's markets will provide a steady and profitable future for the copra trade here. It is recommended that the government construct a drying plant to demonstrate the value of the most approved methods of manufacturing copra. Copra properly dried brings at least a peso more a picul than does that produced by present methods.

The hemp-inspection law, elsewhere referred to, will undoubtedly improve the grade and standard of Philippine hemp and restore the product, in which these islands have a natural monopoly, to its leading place in the fiber commerce of the world.

Tobacco has been hampered by a falling off in the demand in the United States for Philippine cigars. This is, unfortunately, due to the poor quality of numerous shipments made during the year 1912-13, when the demand for these products was very active in the

United States. Many worm-eaten and inferior cigars were then shipped to the American markets. The government is cooperating now actively with the cigar manufacturers in an endeavor to correct this situation in the United States and to find there a compensating market for the temporary loss of the German and Austrian markets.

It may be generally said of conditions in the Philippines during the latter part of 1913 and the year 1914 that business in the staple products continued to increase at a normal rate. Purely retail mercantile business, especially among the merchants of the Escolta in Manila, was affected by political uncertainties about the future of the Philippine Islands, which uncertainties have been always more or less a deterrent to the investment of American capital here, and will not be laid to rest until at least the passage of the pending Philippine bill in Congress. The Manila merchants drew down their stocks largely during the early months of 1914, but as fundamental business requirements based on agriculture continued to expand the demand for mercantile products was renewed, and it is believed that these merchants have now found it necessary to replenish their stocks.

A significant feature of Philippine commerce during the year 1914 has been the fact that the exports have surpassed the imports, thus creating a favorable balance of trade for the Philippines. Up to July, 1914, and during the few months immediately preceding that date the export trade of the Philippines was assuming record-breaking proportions. The temporary breakdown due to the outbreak of the European war has now been overcome and the export trade is once more expanding. In the month of January, 1915, the exports were ₱3,685,286 more than in January, 1914, and prices have been fairly well maintained on the whole. The collector of customs in his report dwells upon the fact that the import trade of the Philippines is gradually being absorbed under free trade by the United States. While the advantage of this to the Philippines is not always apparent in the prices to buyers here, since only partial free trade and hence only partial competition exists, nevertheless it is an unqualified advantage to the United States. General free trade would induce competition with the American prices and favor the consumer in the Philippines, but this is impossible under our revenue requirements. In 1914, 50 per cent of our imports came from the United States, and this figure will probably increase.

Restriction of shipping facilities owing to the conflict in Europe has caused a considerable increase in freight rates, an undoubted hardship on the producers here, but this same situation appears to be true of all the commercial countries of the world, and Philippine commerce must bear its share of the disturbance of conditions.

The striking expansion of our commerce during the last decade keeps pace with the wonderful modern development of oriental trade. In China, for example, from 1906 to 1913 trade with all the world increased 50 per cent, and a similar expansion is noticeable in Japan.

In concluding this discussion of business conditions in the Philippines, it is well to emphasize once more the fact that the prosperity of these islands depends upon the staple products. If our present expectations of our commerce in copra, hemp, and sugar are fulfilled, the year 1915 will be a remarkable year for the Philippines. In

the prosperity thus accruing to the islands the merchants will have their share, and Manila merchants may expect to reap their portion of the benefit. Those American houses in Manila which have sought an extension of their trade with the Filipino people have secured a firm foundation for a profitable business. The elementary principles of business would seem to indicate a necessity on the part of the merchants of cultivating the good will of those to whom they wish to sell.

It should be stated that the total foreign trade of the Philippine Islands for the year 1914 amounted to ₱194,556,574, as against ₱202,171,484 for 1913. The imports were ₱97,177,306, as compared with ₱106,625,572 in 1913, and the exports were ₱97,379,268, as against ₱95,545,912 for 1913, showing a decrease of ₱9,448,266 of imports and an increase of ₱1,833,356 in exports. It is to be noted, however, that the last six months of 1914 are responsible for ₱14,845,834 of the falling off in imports showing clearly the effects of the war, while in the same six months the exports fell off ₱5,096,828, thus indicating that the first half of 1914 saw an increase in our exports of ₱6,930,184, as compared with the same period of 1913. Imports of cotton goods alone showed a decrease of ₱3,776,114; iron and steel of ₱2,630,460; cement, about half a million; automobiles and parts and meat products, about ₱400,000 each; wheat flour and other food stuffs of about half a million.

The chief increases were in the importation of coal, amounting to about ₱400,000, and in leather goods, which increased to the extent of nearly a million pesos.

PHILIPPINE FINANCES.

Upon the inauguration of the new administration in the islands in October, 1913, the condition of the treasury was the question of greatest concern. For several years past petitions had been made to Congress in the name of the Philippine government for permission to float a further bond issue, but this permission having been denied by Congress, tentative efforts were in preparation by the administration here in 1912-13 to devise a plan to check extravagance. One factor in the extravagance was undoubtedly the failure of the appropriation bill and the consequent disbursement of the revenues by executive officers without the check of the Legislature. Another factor lay in the uncontrolled discretion given the bureau chiefs to spend the revenues of their respective bureaus. Still another cause may be traced to the effort of each bureau chief to make as good a showing of work accomplished as he could without concern for the general condition of the treasury.

As heretofore stated, for three years prior to 1913 the government had expended from two to two and a half million pesos yearly in excess of its ordinary income, and in 1913 had expended more than ₱7,000,000 in excess of such income. Annual expenses of bureaus and offices alone increased more than ₱2,600,000 from 1910 to 1913. Thus, toward the close of 1913, the surplus of the insular treasury, which in 1910 amounted to practically ₱19,000,000, was greatly reduced, a large part of the assets still remaining to the government being in such form as not immediately to be available for general

appropriation, although the surplus during this period was replenished by transfer from the gold-standard fund.

Alexander Hamilton long ago said that sound finance is the foundation of the independence of states. Especial stress has been laid by the legislative and executive officials upon the necessity for putting our finances upon a sound basis. No more than an individual can a nation with impunity go on living for an indefinite time beyond its income.

Drastic economy was therefore incumbent upon the new administration, and a large portion of the difficulties encountered by all officials may be traced to this source. By the reduced appropriations of the January, 1914, appropriation bill and owing to the unceasing vigor of bureau chiefs and executive heads, the net expenditures of the government for the year 1914 were ₱5,657,603.85 less than in 1913. The total expenditures of the insular government for salaries as shown by the insular auditor for the year ended December 31, 1913, were ₱17,368,314.79, while the total expenditures for such salaries for the year ended December 31, 1914, were ₱15,875,925.25, a decrease of ₱1,492,389.54. Nevertheless, and in spite of this economy, the revenue deficit for 1914 was, as stated by the auditor, ₱2,841,118.81. There would, it is probable, have been no excess whatever of expenditures over revenue had it not been for the European war, which caused a sudden fall in our customs receipts approximating ₱1,500,000 under what had been reasonably expected; and the additional fact that the Underwood tariff bill, by striking out export taxes in the Philippines, deprived this government of the further sum of approximately ₱2,000,000 during 1914. A further element is the increasing demand upon the insular treasury by the provincial governments. The undersigned concurs most heartily in the recommendations of the auditor in his current report that taxation be revised in the Philippines, so as to encourage the provinces to true self-government by making them self-supporting, thus allowing the insular government to go forward with many insular public improvements. Nothing in administrative practice is more difficult than to reduce the expenditures of a government, and great credit is due to the officials and employees of the insular government in that they cooperated so earnestly with the Legislature in its effort to avert financial disaster. In the month of December, 1914, ₱1,582,752.58 of surplus accumulations in the various sinking funds were, on the advice of the insular auditor, transferred to the general funds of the treasury by act of the Legislature. This reduced the decrease of the general surplus in the treasury in 1914 to ₱1,258,366.23. With the liquid surplus reserve drawn down to the danger point, with the necessity of contraction in the personnel and in the expenditures of the government, with the abolition of the export tax, and, to crown all, the outbreak of the European war, it can be readily appreciated what times of financial stringency the Philippine government has passed through.

With the imposition of the emergency internal-revenue law of December 23, 1914, it is hoped and believed that the treasury at the end of the calendar year 1915 will be firmly and soundly upon its feet, with a genuine cash surplus for the current year, for the first time in five years. It is moreover to the internal revenue that the

people of the Philippines must look for the means to defray any increase in current expenses in the near future. Customs revenue, with the present tendency of our imports to come in increasing ratio from the United States, can not be expected to furnish it, and whatever may be the merits of a bond issue for permanent improvements no economist would approve the issue of bonds to meet current expenses when any other reasonable solution of the difficulty may be found, as has been done here.

GOVERNMENT AID TO BUSINESS.

While it is a safe maxim that the best service a government can render to business is to interfere with it as little as possible, nevertheless emergencies have arisen making exceptions to this rule necessary in the Philippines. Reference has been made elsewhere to the government deposits in aid of the sugar planters. During the August crisis the government was further prepared to assist with treasury funds in the holding for market of staple commodities in the Philippines, but fortunately that situation righted itself without need of such assistance. In August and September also the government was able to secure from the governments of near-by countries concessions in the relaxation of embargoes laid by those countries upon the export of their products to the Philippines. This was especially the case in regard to the exportation of rice from French Indo-China, coal from Japan, and meats from Australia. In addition, we found reasons for believing that a corner in milk and rice was imminent in the Philippine markets. Thereupon the insular government obtained from the commanding general of the Philippine department of the United States Army permission to sell to the people part of the army's large store of canned milk at cost price. As soon as this was known the price of milk in the open market fell to a reasonable figure, and government intervention was further unnecessary. The government dealt with the rice situation in a somewhat similar way. Through the courtesy again of the commanding general of the Philippine department the use of the United States Army transport *Warren* was obtained in August, 1914, to bring a large cargo of rice from Indo-China which was held by the government and sold at reasonable prices in those municipalities in the Philippines where corners were attempted to be put through by local dealers. This action of the government had the effect of causing rice again to drop to a normal figure.

INSULAR TREASURER.

In the reports of the secretary of finance and justice published herewith is found a very full synopsis showing the condition of the insular treasury and of the various funds and bond issues on December 31, 1913, and on December 31, 1914. Particular attention is invited to the operation of the Agricultural Bank, of which the insular treasurer is manager.

Long-time mortgage loans amounting to ₱1,330,230 were made during the year 1914, making the total of such loans outstanding on December 31, 1914, more than ₱4,000,000.

Owing to the fact that funds available for such loans were practically exhausted by July 1, 1914, few additional loans were made during the last six months of the year. However, early in the year 1915 arrangements were made whereby the repayments of loans to the bank during the calendar year 1915 can be anticipated, and additional loans may be made not in excess of ₱500,000.

One of the recommendations which will be made by the Governor General to the next Philippine Legislature is that additional funds immediately be made available for deposit in the Agricultural Bank, to be lent in amounts not to exceed ₱35,000, as at present contemplated by the law. It is hoped that at least ₱4,000,000 may thus be set aside, and from year to year additional capital should be provided. This suggestion is now being carefully studied and the action taken will be set forth in the next report.

The activities of the bank, at the request of the merchants of the islands, have been extended to the collection of drafts against shipments of merchandise to points at which Agricultural Bank agencies are established. The bank undertakes the collection of such drafts and the service rendered is growing in favor.

The Governor General believes that additional facilities should be extended farmers and that the bank should be permitted to make short-term loans on growing crops. This, however, is a procedure which will require careful study and investigation, and it may not be possible to take final, decisive action during the present year.

Another feature of the bank's activities, if proper safeguards can be established, could profitably include the lending of money to sugar planters and other agriculturists in the islands, as is now done through the Bank of the Philippine Islands. As elsewhere stated, the government has for each of three years deposited a sum not in excess of ₱2,000,000 with the Bank of the Philippine Islands, at 1½ per cent interest per annum, which is lent by the bank to the sugar growers of the south at interest not exceeding 8 per cent per annum and for a period of not exceeding one year, with the usual guaranties.

Owing to the conditions attendant upon the disturbed state in Europe, sales of exchange to the United States are increasing and the gold-standard fund should show a marked increase in earnings for the year 1915.

DEPARTMENT OF PUBLIC INSTRUCTION.

This department contains the bureaus of education, agriculture, supply, prisons, printing, the Philippine Library, and the former sales agency, which was abolished at the last session of the Legislature.

Vice Governor Henderson S. Martin, who is also secretary of public instruction, was called to the United States at the end of October, 1914, for the purpose of giving his views on the Philippine bill then before the Senate Committee on the Philippines, and the effect of his testimony has been excellent.

Commissioner Rafael Palma acted as secretary of public instruction after the resignation of Secretary of Public Instruction Gilbert, on October 17, 1913, until the arrival of Secretary of Public

Instruction Martin, on January 26, 1914. From October 30, 1914, to February 6, 1915, the Governor General acted as secretary of public instruction, and from February 6, 1915, to March 27, 1915, Commissioner Palma again acted as secretary of public instruction.

The report of the secretary of public instruction is so comprehensive that it is unnecessary at this point to make detailed observations upon the important work of the public schools. The report of the director of education is printed as a separate document and is also available. The reports above referred to indicate that greater interest than ever before was taken in educational work in the islands during 1914. The following figures, taken from the report of the secretary of public instruction, indicate the increase in the number of schools, teachers, and pupils:

	1912-13	1913-14
Number of schools.....	2,934	4,235
Number of teachers.....	7,671	9,462
Annual enrollment.....	440,050	621,030
Average monthly enrollment.....	329,756	489,070
Average daily attendance.....	287,455	428,552

Particular emphasis was laid also upon progress in athletics, so that now 95 per cent of the boys and girls in public schools are participating in athletics or are receiving physical training.

Mention is made in the report of the secretary of public instruction of the necessity of further appropriations for school purposes, and in this connection attention is invited to the fact that in the year 1914 23½ per cent of all the expenditures of the Philippine government were for educational work, a record which it is believed is not surpassed elsewhere in the world. In the desire for continuation and extension of this vast program of educational work, both Americans and Filipinos unite. The educational work in the Philippines is a particular source of pride to the people of the United States, and, moreover, the political principles of all parties demand that as rapidly as possible the Filipino people should receive the most modern education to fit themselves for their future responsibilities. Filipinos are equally eager to carry on this great work of education, and the Legislature votes with the greatest generosity all funds available for these purposes. Other Governors General have from time to time made mention of the desire of the Filipino people for education. The tremendous pressure brought upon the Legislature of the Philippines to appropriate funds for education can hardly be understood by one not on the ground and subjected to the influences which are brought to bear. The Filipino representatives of the people are under continuous pressure to secure additional appropriations for this purpose, and at times it would appear that other functions of the government are in danger of being temporarily overlooked to make way for education.

That this desire for education is not artificially created is evidenced by the fact that in more than 150 municipalities throughout the Philippine Islands certain of the public schools are maintained wholly or partially by voluntary contributions of the residents of the municipality.

The secretary of public instruction calls attention to the fact that there are approximately 1,200,000 children of school age in the Philippines, while the total enrollment for the present year will approximate 630,000. As explained by him, however, this should not be taken to indicate that half the children in the islands are being neglected. Special stress is laid upon the extension of school work in the Mountain Province and other regions inhabited by non-Christian peoples.

It is the opinion of the Governor General that particular emphasis should be laid upon primary education and industrial education, so that eventually all the people of the Philippine Islands shall have the elementary foundations of modern education and, as far as possible, shall have been taught some useful trade or occupation.

The American teaching force is about 80 less than during the school year 1913-14. It is believed that the present number of American teachers should be maintained for the present, although Filipino teachers are rapidly demonstrating their ability to carry on a high class of educational work.

During the year 1914, 60 new standard concrete school buildings were constructed and 5 reconstructed, making a total of 748 permanent school buildings in the islands in addition to 783 of mixed material and 1,910 of temporary or light material. The girls' dormitory building in Manila was also completed in 1914, and will accommodate about 260 girls.

BUREAU OF AGRICULTURE.

Following upon the successful rice crop of 1913, the crop of 1914 was damaged by the great drouth to such an extent that it will probably disclose a decrease of 25 per cent, and urgent recommendations are made by the director of the bureau for the development of irrigation works to avoid similar shortages in the future. At the same time, the director invites attention to the fact that corn is becoming rapidly more popular as a food product and that the bureau is inducing the people to plant corn in ever-increasing quantities. The crop for the year ending June 30, 1914, is reported as being 6,265,746 cavans, an increase of 44 per cent over the preceding year. The sugar crop of 1914 exceeds that of the year before by 20 per cent. The production of coconuts is also increasing. The production of hemp (abaca) had recovered from the effects of the 1912 drouth, but the outbreak of the war entailed a drop in prices and curtailment of production. The crop of tobacco was larger than that of the preceding year, but the prices were not encouraging. For 1915 it is estimated this tobacco crop will be very small.

The work of the bureau in the food production campaign has been referred to elsewhere. A great deal of attention was given by the bureau also to the formation of cooperative agricultural societies, and a total membership of 12,000 had been organized by the end of the year.

The bureau makes a strong recommendation for immunization of the cattle of the islands against rinderpest by simultaneous inoculation. It is still believed that quarantine alone is not a sufficient

measure to restore the cattle of the islands to their normal numbers. Simultaneous inoculation is reported to be the most successful solution of this problem by those best qualified to judge, and is now being undertaken with success in several provinces.

Act No. 2380 was passed in February, 1914, to provide for the inspection, grading, and baling of hemp and other fibers, and the fiber division of the bureau of agriculture prepared itself to undertake this important work when the law went into effect on the first of January, 1915. The fiber inspection law provides for a standardization of the commercial grades of the principal Philippine fibers; for a system of government inspection of fiber graded and baled by private establishments; and for instituting educational campaigns among the producers. The necessity for this law became apparent from the fact that the grading of Philippine fibers was very much confused in the markets of the world and our hemp products were gradually losing in competition with other fibers. No greater benefit could be conferred upon the hemp producers of the Philippines than a steady and assured market at the high prices which are deserved by Philippine hemp. This is the real purpose of the fiber-grading law, and although it met at first with some opposition, due to misunderstanding on the part of the producers, it is gradually receiving the support and indorsement not only of exporters but of the producers themselves.

It is desired here to invite attention to the liberal annual appropriations for the bureau of agriculture; to such appropriations as have been made for irrigation projects; to the fact that during the last three years approximately ₱4,000,000 has been lent to agriculturists directly by the Agricultural Bank; and to the yearly loans, through the Bank of the Philippine Islands, of an additional ₱2,000,000 of government funds to the sugar producing farmers of certain provinces. All this in connection with the liberal appropriations for road building throughout the provinces, which directly benefits the farmer by enabling him to market his produce cheaply, leads to the conclusion that the government is fully alive to the needs of the agriculturists.

BUREAU OF SUPPLY.

Owing to the necessity for general retrenchment, the volume of business done by the bureau of supply in 1914 was less than for the three years preceding. The amount of total purchases was ₱5,247,001.51, which is lower than the total amount of sales, namely, ₱5,962,276.30, showing a decrease in the stock carried of ₱715,274.79. Sixty-seven and one-half per cent of the total purchases of the bureau and of the provinces was made from local merchants in the Philippines, and if the purchases made by the provinces within their own borders were included, the local purchases of the bureau would undoubtedly rise to 80 per cent of the whole. During the year the rate of surcharge was reduced to 5 per cent, which is less than the former cost of operation of the bureau. The business of the division of cold storage showed a decrease of approximately ₱100,000, owing to the development of private ice companies in Manila.

BUREAU OF PRISONS.

The prison population of the Philippine Islands on December 31, 1914, was 6,763, of whom 1,645 were confined in provincial prisons, the rest in insular institutions. A considerable betterment in the provincial jails is noted during the year 1914 in the line of discipline, efficiency, and the sanitary conditions.

Improvements at the Iwahig penal colony were made during the year, and the condition of the colonists was in general satisfactory. Several escapes occurred and some local disorder was created subsequently by the escaped colonists who had taken to the forests and mountains of Palawan. Most of the prisoners have since been apprehended.

BUREAU OF PRINTING.

A decrease in the amount of work of this bureau during the year 1914 resulted in a reduction in the number of employees, both American and Filipino, which has produced a saving of nearly ₱60,000 in the salary list alone. The work of training Filipino craftsmen is carried on with undiminished interest and success. The output of the bureau decreased by approximately 11 per cent, and the director reports that, on the whole, the work of the bureau was carried on with increased efficiency.

PHILIPPINE LIBRARY.

The Philippine Library had a marked increase in circulation, due partly to the removal by the secretary of public instruction of all charges for the use of books.

DEPARTMENT OF MINDANAO AND SULU.

Reference has already been made to the appointment of Executive Secretary Frank W. Carpenter as governor of the department of Mindanao and Sulu. This department includes territorially the old Moro Province and the provinces of Bukidnon and Agusan in the island of Mindanao, formerly under the jurisdiction of the secretary of the interior. This territory comprises almost the entire Mohammedan population of the Philippines and presents special problems for consideration. The success of Gen. Pershing when governor of the Moro Province in disarming the rebellious inhabitants made possible for the first time the real pacification of these regions. The ground then was ready for an extension of modern civilizing agencies there. This is the great work of administration and organization undertaken by Gov. Carpenter and his success is one of the bright pages of the American occupation of the Philippines. The population of Moroland, hitherto so turbulent, is now peaceful and devoting itself to the arts of agriculture. Everywhere in regions only recently the scene of warfare the ground is devoted to crops. With a continuation of the tactful management now in control, the spread of doctors with modern dispensaries, of school-teachers, engineers and surveyors has begun throughout the department of Mindanao and Sulu. The work of the military was thoroughly done in the de-

partment and the undersigned acquiesced in the judgment of the commanding general, J. Franklin Bell, in December, 1913, in removing the American soldiers from Mindanao and at the same time decided upon the substitution of a government by civilians for a government by a military officer in that region.

In the Moro country, as well as in the Mountain Province, a new policy was inaugurated of cultivating confidence and good will between the non-Christians and their Christian neighbors. Especial stress was laid upon the fact that all the inhabitants of the Philippine Islands were destined to form a united people with a common nationality. Earnest efforts have been made to eradicate the distrust with which the Mohammedans viewed the people of other religions and most gratifying results of harmony and cooperation are already beginning to appear. Christian Filipinos from the northern islands have been installed as government officials, especially as school-teachers, in many of the remote portions of the Moro country and have been uniformly successful; in no instance has any violence been offered them or any obstruction placed in their way. The undersigned concurs in the urgent recommendation of the governor of the department for largely increased appropriations for the establishment of schools in Mindanao and Sulu.

In addition to the colony of Cebuanos in the Cotabato valley in the heart of Dato Piang's Mohammedan population, colonies have been undertaken for the settlement of Ilocanos in Bukidnon, among the Bukidnons and Manobos.

Extensions of telephone and telegraph lines are proceeding on a large scale, and public order continues to be most excellently maintained. Plowed fields or growing crops are conspicuous in regions which but recently were uncultivated and unfriendly. Even in Jolo, the scene of so much disorder in former years, better conditions of peace and agriculture obtain than at any time since American occupation.

Act No. 2513 of the Legislature appropriated funds for the maintenance of a hospital ship to serve the inhabitants of the islands of Mindanao and Sulu, upon the understanding that part of the expenses of operation were to be borne by the Rockefeller Foundation.

The organic act for the reorganization of the government of Mindanao and Sulu, passed by the Commission in July, 1914, divides the department into seven provinces, the officials of which are appointed by the governor of the department, while in both the provinces and the municipalities the election of officials is provided for as rapidly as warranted. Local autonomy is granted the native inhabitants wherever feasible. The authority of the bureaus of the insular government is gradually extended over the department, so as to incorporate this large territory into the general administration of the Philippines. The customs revenues of the department are now turned directly into the insular treasury, and the expenses of department administration are met out of the insular treasury by appropriation of the Philippine Commission upon a budget prepared by the department governor. The expenditures are made by the department legislative council. The general laws of the Philippines, administered by the courts of first instance and the regular justice of the peace courts, are gradually completing the assimila-

tion of the Mohammendan population, due consideration, however, being given to the religious customs of this people.

THE PHILIPPINE BILL.

The Philippine Commission in its report printed herewith makes mention of the importance of the early passage by Congress of the pending Philippine bill. The extended powers of self-government offered to the Filipino people by this measure will afford the best demonstration to the world of the capacity of the Filipino people, and will give unmeasured satisfaction to the people of these islands.

The preamble of the bill, containing as it does an unequivocal statement of the intention of the people of the United States to give ultimate independence to the islands, will be regarded by the Filipino people as an affirmation of the often-expressed policy of our country toward them. Every nation as well as every individual must have an ideal, and all Americans should unite with the Filipino people in cherishing for their future ideal that independence which we value so highly for ourselves.

The Filipinos, citizens of all nations residing in the Philippines, all parties, and all factions realize that business as well as political conditions will improve upon a statement of definite policy by the Congress of the United States. Prevailing uncertainty will come to an end immediately upon the enactment of such a measure as that advocated. Every sentiment of good faith on the part of the United States calls for an affirmation of the statements heretofore made by the representatives of the United States in the Philippine Islands, that eventually the people of the Philippines are to be given their independence.

All who have resided in the Philippine Islands must appreciate the tremendous achievements of the United States in the islands since American occupation. We are perhaps somewhat prone to underestimate, however, the part which the Filipino people have borne in our success. Only through their willing cooperation in executive administration and in the expenditure of their revenues, as expressed in the acts of the Legislature, of their provincial boards, and of their municipal councils, have we been able so easily and so rapidly to make the tremendous strides and improvements in order, sanitation, and public works of which we are so proud.

UNITED STATES ARMY.

Gen. J. Franklin Bell was in command of the Army when the present Governor General arrived in the Philippines and until April, 1914, when he was relieved by Maj. Gen. Thomas H. Barry. Nothing could be more cordial or satisfactory than the relations maintained between the insular government and the Army under these distinguished officers. Occasion has been taken in several places in this report to refer to the active assistance given to the insular government in administrative matters by the Army, and the undersigned takes this occasion to express his deep appreciation of the many acts of kindness and courtesy shown insular government officials by the Army. The policy of gradual withdrawal of the permanent use of

the Army in civil matters has now been completely carried out, even the Philippine Scouts being at the present time entirely relieved from civil duties, except in the cases of Capt. Allen S. Fletcher, whose excellent work in the hinterland of Lanao is of great service to this government, and two hospital stewards of the Army on partially civil duty in Mindanao and Sulu.

UNITED STATES NAVY.

Similarly the officers of the United States Navy stationed in the Philippines have been of the greatest aid and assistance to the insular government, especially in the solution of many of the delicate questions involved in the enforcement of our neutrality during the European war. Rear Admiral Reginald F. Nicholson and subsequently Admiral William C. Cowles, in command of the Asiatic station, have lent every assistance, personal and official, requested by the insular government.

NEUTRALITY.

The presence in Philippine waters of many vessels belonging to the belligerent nations, the questions of the export and import of conditional contraband of war, and many other matters connected with the enforcement of our neutrality as directed by President Wilson have occupied the time and attention of the executive during many days since the war began.

CONSULAR CORPS.

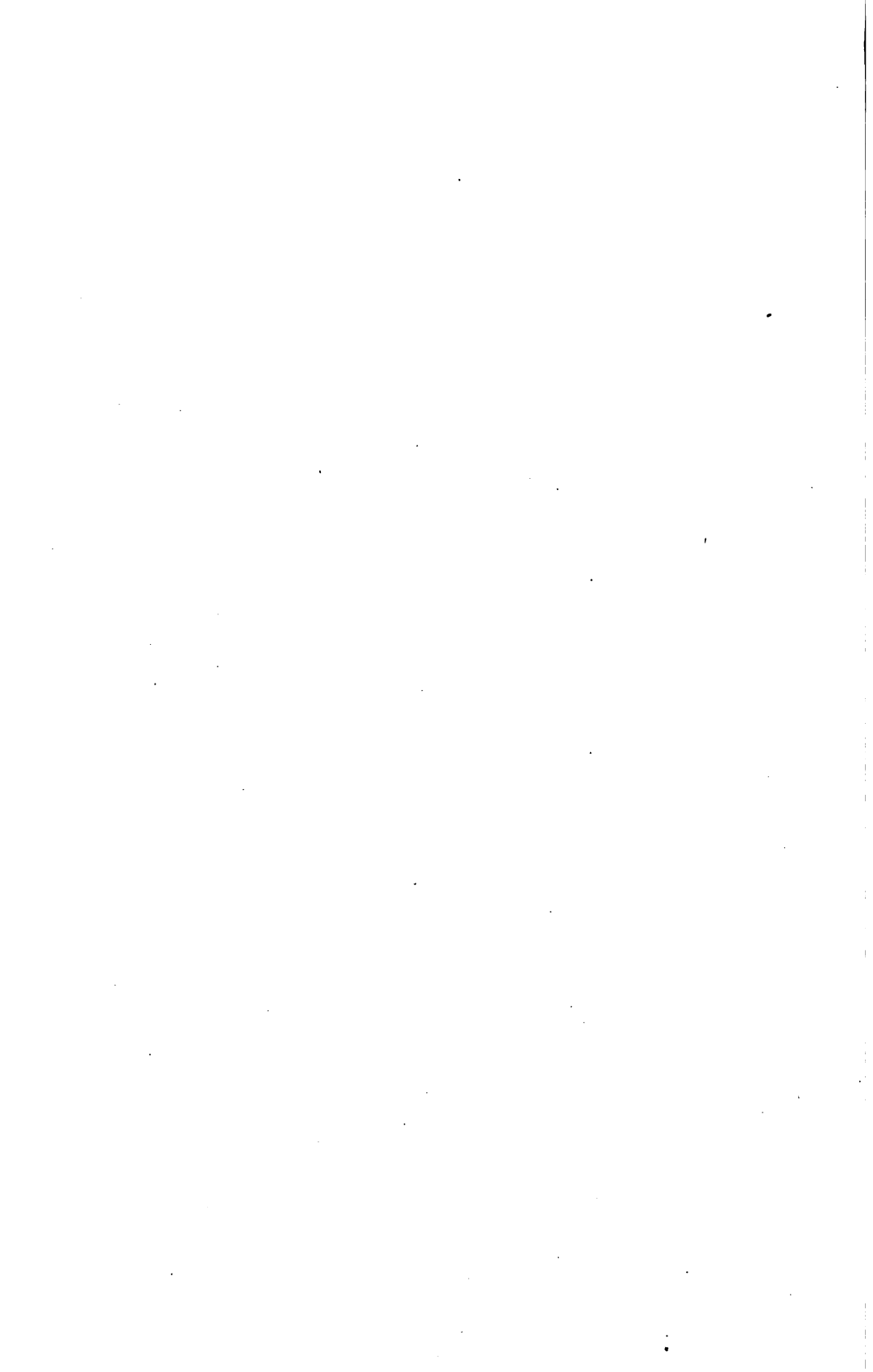
The undersigned has met with uniform courtesy and consideration from the members of the consular corps, and desires to express herewith his appreciation.

While this report deals particularly with the period from July 1, 1913, to December 31, 1914, it has been necessary for proper correlation to mention matters occurring since the latter date.

Very respectfully,

FRANCIS BURTON HARRISON,
Governor General.

The PHILIPPINE COMMISSION,
Manila.



REPORT OF THE SECRETARY OF THE INTERIOR.

JULY 1, 1913, TO DECEMBER 31, 1914.

THE GOVERNMENT OF THE PHILIPPINE ISLANDS,
DEPARTMENT OF THE INTERIOR,
Manila, March 31, 1915.

GENTLEMEN: I have the honor to present the thirteenth annual report of the operations of the department of the interior, covering the period of six months between July 1 and December 31, 1913, and also the fiscal year 1914, which coincides with the calendar year.

In some cases it has been necessary to include reference to incidents which happened shortly after this period in order to complete the account of certain transactions.

DEPARTMENT PERSONNEL.

Hon. Dean C. Worcester, who was the head of the department of the interior from its beginning, the creator of its organization, and the dominant motive power of its multifarious activities, resigned his position on September 15, 1913.

Under his guidance, a work of historical importance was accomplished: Modern sanitation was introduced, and so perfected that Manila now ranks among the healthiest cities of the world, while many diseases, formerly widespread throughout the islands, were suppressed or controlled; a great medical school and the finest hospital in the Orient were created; some 400,000 wild men were brought under government control, so that their territory, formerly almost in constant warfare, is now peaceful and safe; the vast domain of public lands was brought under administrative control for useful development; the utilization and conservation of an almost unparalleled wealth of forest was provided for through a bureau of forestry, very efficiently organized; valuable laboratories were established, controlled by a staff of able men under the bureau of science; and commerce and agriculture were aided by the work of the weather bureau, continued under Father Algue.

For these great services, and for many others, the Philippine Islands are immensely indebted to Secretary Worcester.

The Governor General was acting secretary from his arrival in October, 1913, until the arrival of the undersigned on March 2, 1914.

Mr. A. O. Zinn, private secretary, generously continued his supervision of the office after the departure of Secretary Worcester, notwithstanding his great personal need of rest from an excessively long period of uninterrupted labor. His services were invaluable, and when he was promoted to be acting fourth assistant executive secretary, I was genuinely sorry to lose his aid.

When the position of "Delegate" was created to superintend the work among the non-Christians, I followed the advice of my predecessor, confirmed by my own experience, and asked Mr. Zinn's permission to nominate him for it. This had been the field of his keenest interest, his knowledge of it was very wide, and his views were full of constructive value. To my sincere regret, he was unable to accept, owing to the condition of his health, and he finally returned to the United States. His departure was a severe loss to the department, and was regretted by everybody in it, as well as by a wide circle of friends and associates in all branches of the service.

He was succeeded as private secretary by Mr. Charles C. Batchelder, who was later appointed to the position of Delegate, and in turn succeeded by Mr. Addison E. Southard, then chief clerk of the bureau of science.

Early in 1915, Mr. Southard was offered an appointment as private secretary to the American minister at Peking, and at the same time received an opportunity to take the consular examination. As he had long desired to enter the Diplomatic and Consular Service, I was obliged to give him up, to my great regret. His resignation is another serious loss to the department.

Mr. Roland B. Pendergast was appointed private secretary to succeed Mr. Southard.

THE MORALE OF THE DEPARTMENT.

The zeal of the men of the department in the performance of their duties has continued to be admirable, and the spirit of cooperation most satisfactory.

Indeed, the chief difficulty is excessive overtime and holiday work. This appears to be an old habit of the department, but, creditable as it is from the point of view of morale, it is not just and ought to be rendered unnecessary.

In the secretary's office the higher members of the staff work practically all day and most evenings, Saturday afternoons, and Sundays; and the two stenographers and the copyist work frequently Saturday afternoons and average an hour apiece overtime on the regular daywork.

In the offices of the bureaus a great deal of Sunday, Saturday afternoons, and evening work is done, in addition to overtime work in day hours averaging about 17 hours per month for every employee. This condition has existed for a great many years, not only in this department but in others.

I respectfully recommend, in justice to the employees, that sufficient force be provided to do the work required by law without this imposition upon them.

Another undesirable condition which has existed in the service from the very beginning, notwithstanding frequent agitation, is the failure to provide proper terms of transfer for American employees into the home civil service on the termination of their work here.

At least as far back as 1906 this necessity was pointed out by Mr. A. W. Fergusson, then executive secretary, in his annual report (Rept. Phil. Com., 1906, Pt. I, p. 97), but, unfortunately, his recommendation was never acted on.

Theoretically, it is true, Americans leaving the Philippine service may be transferred into the home service, but the privilege is of little practical avail, because the employee must first find a suitable vacancy in America, and, even if he succeeds in doing this, he must still persuade the head of the department to grant him the appointment, instead of promoting some one already in line in the same department. Naturally the man in the Philippines has very little chance in such a competition, and can seldom get in, except at the bottom or at a serious reduction in pay.

I recommend that the home government be requested to consider some amendment to the civil-service rules by which, for example, American employees leaving the Philippines could have an absolute right to the next vacancy occurring in the home civil service, which the United States Civil Service Commission should certify to be appropriate to their experience and qualifications.

PUBLIC HEARINGS AND CONSULTATION WITH CITIZENS.

In order to avoid mistakes due to unfamiliarity with the local conditions and the language, traditions, and customs of the people, I have resorted freely to public hearings on all matters of general public importance. During the year the department has participated in at least 18 such hearings.

In many matters the department has made a distinct effort to hold personal consultations with citizens interested in any especial branch of the department's work, and, above all, with persons inclined to oppose any method or plan of the department.

Frequently, also, the department has invited the advice and cooperation of unofficial voluntary committees, containing usually a representative of those who opposed the proposed plan, a representative of the department, and third persons particularly familiar with the general subject.

Often these measures have revealed some justification for the objections advanced, and also some practical way of modifying the department's action so as to adapt it to existing conditions without injustice or injury to anyone.

Sometimes they have disclosed pure misunderstanding of the department's intentions, due to no fault of anyone, but merely to differences of language or misinterpretation of acts. As even such misunderstandings, however, lead to irritation and opposition, obstruct efficient and smooth administration, and prevent harmonious cooperation with the public (especially between different races), the department has sought to prevent them, or, when they occur, to correct them, with precisely the same care which it uses to prevent or correct any positive mistakes.

COMPLAINTS OF CITIZENS.

Another helpful method of preventing such mistakes, or of correcting them, has been painstaking attention to complaints of individual citizens. For administrative purposes the department has acted on the assumption that every complaint, wherever it may originate, is likely to have some justification, that it indicates at least

irritation, and that such irritation should be alleviated wherever possible. As a rule, these assumptions have proved sound.

WORK OF THE DELEGATE FOR THE NONCHRISTIAN PEOPLE.

CREATION OF THE OFFICE OF DELEGATE.

Following the recommendation of my predecessor I introduced a bill into the Commission to centralize the work of the department among the non-Christians, placing it in charge of a new officer, known as "Delegate of the secretary of the interior for the non-Christian people." Hitherto it has been in direct charge of the secretary.

Upon the passage of this bill, Mr. Charles C. Batchelder was appointed to the position, and, as the results show, has carried on his difficult work with a deep insight into its requirements. He has pushed the campaign of economic, sanitary, and educational development with great vigor, and has encouraged and fostered increasingly friendly relations between the non-Christians and the Christian Filipinos.

SUPERVISION.

Close supervision of affairs has been maintained by personal visits both of the secretary and of the Delegate. They have kept in close touch with the governors and the lieutenant governors, and have also held numerous councils throughout the provinces, at which individuals have had every opportunity to give their points of view.

The secretary has visited Palawan repeatedly, and has also made tours of Mindoro, Nueva Vizcaya, and the Mountain Province, as well as of Agusan, Bukidnon, Lanao, Zamboanga, Cotabato, and Jolo, in the department of Mindanao and Sulu.

In his tour of Nueva Vizcaya and the Mountain Province he was accompanied all the way by Commissioner de Veyra, and through considerable portions of the journey by the Governor General, Secretary Riggs, and Commissioner Palma. Commissioner Ilustre joined the party for a conference at Bontoc, and also visited other parts of the province. Throughout this journey councils were held with the native leaders, whose chief requests were always for schools and doctors, and for dynamite for use in constructing irrigation ditches.

SPIRIT OF COOPERATION.

Perhaps the pleasantest feature connected with the administration of the work among the non-Christians is the enthusiastic working together for common objects of the employees of the insular government, American and Filipino alike, regardless of the particular organization or bureau to which they belong. This is true not only of the officers and employees in the special provinces, but also of the bureau chiefs and employees in Manila, who are brought into close official relations with the work of the Delegate.

THE MOUNTAIN PROVINCE.

PERSONNEL.

Gov. E. A. Eckman and the other provincial officials, who are familiar with the local conditions and have the confidence of the inhabitants, have rendered excellent service in carrying out the policies of the department for the welfare of the inhabitants.

Since the departure on leave of the provincial treasurer, Mr. C. W. Olson, his work has been very satisfactorily performed by Mr. José Martinez, who became thoroughly familiar with the routine during his previous experience as chief clerk.

Mr. Samuel E. Kane, formerly lieutenant governor of Bontoc, assumed on February 1 the duties of lieutenant governor for the united subprovinces of Lepanto and Amburayan, relieving Lieut. Govs. E. A. Seidenspinner, of Lepanto, and E. de Mitkiewicz, of Amburayan.

Mr. Sharon R. Mote, head teacher of Benguet, was appointed acting lieutenant governor of Bontoc, to fill a vacancy, and has been on leave during the last few months.

Capt. Harry Davis officiated as acting lieutenant governor of Benguet during the absence of Lieut. Gov. Evans, who is at Fort Bayard.

No other changes have been made in the higher officials, and only ordinary routine changes in the subordinates.

PEACE AND ORDER.

The already-established arrangements for preserving peace and order have continued to prove most satisfactory. Only four murders were known to have taken place in the Mountain Province during 1914 in the entire population of about 400,000.

CONSTABULARY.

The constabulary have continued to render excellent service in patrol work, and have also cooperated in sanitation, in the work against locusts, and in many other ways. Several of the constabulary officers have cheerfully, without additional remuneration, performed much work which would usually be imposed upon the civil functionaries, but which could not be undertaken by them owing to pressure of other duties.

PUBLIC WORKS AND TRAILS.

Outside of the ordinary maintenance and improvement of roads and trails, there were constructed 39 kilometers of new trail connecting the subprovinces of Kalinga and Apayao, 55 kilometers of new trail in Kalinga subprovince, 3 kilometers of new trail between Bagnen and Sagada, 28 kilometers of new trail between Tukuran and Tinglayan, 20 kilometers of new trail between Natonin and Butigui districts of Bontoc subprovince, and 12 kilometers of new trail between K. 33, Mountain Trail, and Adaoay, of Benguet subprovince.

The province now has a total mileage of graded cart roads and trails of 1,564 kilometers.

Eighteen new school buildings of light materials were constructed.

EDUCATION.

The advance in education during the past year has been marked. New schools have been established in many of the isolated regions, and the total attendance has increased over 60 per cent, as appears from the following figures:

Subprovince.	Attendance February, 1914.	Attendance February, 1915	Per cent increase.
Amburayan.....	1,005	1,320	31
Apayao.....		95	
Benquet.....	912	1,472	61
Bon'oc.....	225	366	63
Ifu'ao.....	359	664	85
Ka'inga.....	61	176	190
Lepanto.....	643	1,139	78
Total.....	3,205	5,232	61

This improvement in attendance has not been due entirely to new schools, but in part to the establishment of local school boards. The influential head men who have been appointed on these boards have given splendid cooperation in improving attendance and arousing interest in school matters.

The increased attendance of girls is particularly gratifying, as formerly almost the entire enrollment consisted of boys, because the natives preferred to keep the girls at home for drudgery in the houses and fields. They now realize that girls should receive the same opportunities for education as their brothers, and so send them to school.

The great difficulty is the scarcity of experienced teachers. In several towns the people have provided school sites and buildings in the hope that some day teachers will be sent to them, and in most cases their desire will be gratified in the near future. Other towns are willing to pay and subsist good teachers to enable their children to advance as fast as other towns which have schools. Even the additional appropriation which the Commission made last summer has not been sufficient to meet the growing demand.

The work of the bureau of education now being conducted among the mountain peoples deserves the highest praise. The excellent service of the American teachers is well known, but no one can fail to be impressed with the enthusiasm, genuine patriotism, and painstaking effort shown by the young Filipino teachers who are engaged in helping their less fortunate fellows. It is probable that these qualities can safely be relied upon to bring about an eventual solution of the problem of the elevation of the mountain peoples in the scale of civilization.

The best results will clearly be secured by adapting the education to the immediate necessities. The division superintendent of schools, Mr. D. M. Thomas,¹ with the support of the director of education,

¹ Appointed industrial supervisor and member of the provincial board early in 1915.

shows a clear appreciation of the requirements, and is giving special attention to teaching agriculture and various industries to the boys and domestic science and household industries to the girls, without sacrificing academic requirements.

SANITATION.

The special appropriation for doctors, nurses, and sanitary inspectors has produced excellent results in improving the sanitary conditions of the province. The doctors are making frequent inspections of the villages in their districts, advising the people in matters of health and sanitation, and distributing quantities of quinine and other simple medicines.

The inhabitants have shown good response to these efforts, willingness to cooperate, and pride in the condition of their villages.

Native Ifugao sanitary inspectors have done especially good work under the direction of Lieut. Gov. Tomlinson. Arrangements have been made for a school connected with the Bontoc Hospital to train the natives as practicanes and sanitary inspectors, and students from the province are being trained in Manila in nursing and midwifery.

In addition to the hospital at Bontoc branch hospitals have been established in Cervantes, Kiangan, and Lubuagan, with a doctor in attendance at each place.

These hospitals and doctors are doing here the pioneer work which they always accomplish so successfully. At first the sick refused to come to the hospitals and the relatives even declined to allow them to be treated in their own homes. This opposition has practically disappeared, and now patients are brought many days' journey to receive treatment wherever a doctor is stationed. They show much appreciation and gratitude and the results are most satisfactory.

During the months of September, October, and November a cholera epidemic appeared in the towns of Tagudin and San Gabriel, which caused the death of 26 persons before it was stamped out. If it had not been for the three artesian wells drilled in Tagudin last year the loss of life would undoubtedly have been much greater. The teachers stationed in Tagudin rendered invaluable assistance, both practical and educational.

Great aid in improving the sanitary and economic situation has been given by a survey of the province made, through the courtesy of the commanding general, by Maj. E. L. Munson of the United States Medical Service, who showed a complete grasp of a complicated situation and made most helpful suggestions, which are being carried out.

AGRICULTURAL AND INDUSTRIAL DEVELOPMENT.

The rapid increase of population, taken in connection with the frequent loss of crops due to drought and locusts, and the growing demands of the inhabitants for articles which accompany an ascent in the scale of civilization, make it essential to increase the production of food and to extend industry.

The immediate situation is rendered difficult by the fact that the work on the Naguillian Trail has been completed and construction of the railroad to Baguio has been suspended, owing to the war, so that

people who desire to work for wages can no longer support themselves by these employments, as they have been doing in the past.

The increase of the food supply can not be accomplished by opening up new land, because practically all the available land has been, or is rapidly being, brought into use. Effort, therefore, must be directed to improving the cultivation of existing fields through the introduction of new plants, better varieties of existing plants, agricultural implements, the use of fertilizers, and especially of leguminous plants.

The bureau of agriculture has assisted by furnishing a large number of seeds and cuttings of various kinds and by providing supervision.

Ten more nurseries and seedling stations have been established, besides those already existing in La Trinidad, Bontoc, and Lubuagan.

Eight cooperative school gardens and three mission gardens have been started, which are rendering excellent assistance in the introduction of profitable crops and in giving instruction and aid in seed selection.

In all of these stations, coffee, cacao, kapok, papaya, mango and mulberry trees have been planted in quantity, and will be distributed to the people for planting in permanent locations during the next rainy season. Further, Hawaiian pineapples, sugar-cane points, potatoes, upland and irrigated rice, American sweet potatoes, bananas, mangos, beans, corn, peanuts, cowpeas, and various other vegetables have been distributed direct to farmers, and special attention has been paid to the distribution of the varieties of bamboo which flourish at high altitudes, in order to provide the materials for better houses.

Perhaps the most promising agricultural resource of the province is the encouragement of the coffee industry, which was formerly a great source of revenue before the blight made the cultivation of Arabica coffee practically impossible. The natives have taken great interest in the distribution of Robusta coffee, owing to the fact that it resists the blight, and the demand for seeds has increased so rapidly that there is difficulty in keeping pace with it. The Robusta has been thoroughly tried in the Philippines and elsewhere, and with care and patience the restoration of the industry may be hoped for.

The inhabitants are apparently aware of the necessities of the situation and their demands for new plants and seeds appear to be insatiable.

They are, further, very anxious to increase their crops by irrigation, and the policy has been followed of giving provincial assistance to all who wish to help themselves. Therefore dynamite and the necessary superintendence are furnished at cost to all.

Locusts appeared in large numbers in Apayao, Ifugao, and Kalinga subprovinces, but no great amount of damage was caused except in Apayao and northern Kalinga, where secondary crops were immediately planted. The people cheerfully turn out to catch locusts wherever they appear, and the pest is therefore very easily controlled in most districts, although in Apayao, eastern Ifugao, and northern Kalinga there is great difficulty, owing to the large stretches of uninhabited territory in these subprovinces and their proximity to the

vast cogon plains of the west part of Cagayan Valley, where locusts breed in enormous swarms and migrate to cultivated areas for food.

The hills of Benguet, Lepanto, and Amburayan are well adapted for stock raising and formerly supported large herds. Efforts are being made to restore them as a source of wealth to the inhabitants, and these efforts have been greatly aided by the bureau of agriculture, which has lent bulls and stallions to various communities, where considerable intelligent interest has been shown in increasing the herds and in securing better animals. The breeds of swine and poultry are also being improved.

Rinderpest occurred among carabaos and hogs in the Tinglayan district of Bontoc and in several settlements of Kalinga subprovince, but very effective quarantines were maintained with the aid of the people and deaths were kept to the minimum.

The native household industries are being fostered, especially weaving and wood carving, lace making, embroidery, and similar arts, all of which have been a part of the school instruction for some time.

In order to keep the graduates of these schools in touch with their former teachers it is proposed to start special communities made up of married pupils, who will be assisted to build sanitary and convenient houses. Village centers will be erected, in which they can pursue their industries and also teach others who have not had an opportunity to profit by the instruction in the schools. The re-organized provincial exchanges will assist by furnishing raw materials and will purchase and dispose of the finished product.

The introduction of the silk industry is another possibility which is being tried out. Father Jurgens, of the Belgian mission in Bontoc, with the aid of an experienced teacher supplied by the bureau of education, has had excellent success with silk worms secured from the bureau of science. The people have shown a great deal of interest as the result of the exhibition given by Father Jurgens at the Cervantes fair and many of them wish to give the industry a trial. Mulberry trees in large quantities have been set out at Lubuagan, Kiangnan, Bontoc, Guinaang, Tinglayan, and Sabanga, in order to feed the silk worms if the experiment proves successful.

These industries are being guided with a realization of the fact that the exports from the Mountain Province must necessarily be articles of relatively great value in relatively small bulk, because the expense of transportation to the lowlands makes it impossible to export the usual bulky agricultural products to any considerable extent.

APAYAO.

The temporary provincial buildings at Kabugao, the hospital at Tait and the school at Talifugu are progressing, and the construction and repair of the trails continues. A horse trail has recently been opened from Ripang to Kabugao.

The action of two native volunteers in killing the noted outlaw Subngay, who was resisting arrest, has produced an excellent effect. Subngay had fired upon Lieut. Gov. Conner, Capt. Rhea, Capt. Roberts, and Mr. Barton. Great credit is due to Lieut. Gilfillan, who made the arrangements for the capture, and secured the

cooperation of the neighboring people under most difficult circumstances.

This is the first time that any of the natives have openly and positively allied themselves with the government to the extent of attempting to bring in outlaws. Public opinion supports the volunteers who assisted the authorities.

A number of firearms have been turned in, and only three outlaws are at large out of the original band of over 80, who have been causing trouble since 1912.

The tactful work of Gov. Conner in securing the confidence of the people is showing its results on every hand.

BENGUET.

The work on the Naguilian Trail has been completed, so that it is now easily passable for automobiles; but work on the railroad has ceased, owing to the financial conditions resulting from the war.

The inhabitants show much interest in the improvement of stock and agriculture, and many of the principal men are enthusiastic leaders in the work of civilization, especially in matters of education.

The assembly of presidentes held at Trinidad elected Mr. Asterio Favis, the provincial fiscal, to represent them in presenting any necessary matters to the Philippine Commission.

BONTOC.

Progress in Bontoc has been mainly agricultural and educational.

Some of the more advanced girls from the Bontoc schools were taken, with their books, laces, and looms, on a visit to various towns, in order to give a practical demonstration of the benefits of school work. The result has been an increased attendance in the girls' school in Bontoc.

Notwithstanding his exacting duties as road supervisor, which require frequent absences, Gov. E. A. Eckman has found time to do excellent work in arranging for the cultivation and distribution of large quantities of seeds and seedlings of various kinds.

IFUGAO.

Gov. O. A. Tomlinson has shown an enthusiastic devotion to the welfare of his people, and a sympathetic understanding of their points of view. He has been especially successful in sanitation and in agricultural development.

The relations between the Ifugaos and the Christians and non-Christians of the neighboring provinces continue satisfactory.

Work was continued on the Kiangnan water works and irrigation system.

The road from Kiangnan to Bagabag is being steadily improved, so that carts are now constantly transporting goods at a cost of less than 10 centavos per kilo from Manila to Kiangnan, thus lowering the price of supplies of all kinds.

A number of school buildings have been completed in different places.

The bureau of education has stimulated interest in improved agriculture in many ways.

KALINGA.

The new Lubuagan-Bontoc Trail has been opened to traffic, and has proved a great convenience. The work on the trail from the east to the Abra line is also progressing satisfactorily, and other trails are well maintained.

Drought and locusts caused much trouble, but Gov. W. F. Hale met the emergency by destroying the locusts and causing the planting of quick-growing crops. He has also shown much energy in increasing the acreage of cereals, and varying the food supply with vegetables and fruits, showing a clear insight into one of the main necessities of the inhabitants. During the past year he caused at least 60,000 trees of various kinds to be set out, the larger part of which were coffee trees.

No cases of headhunting have been reported during the year, and all the persons guilty of crimes of violence have either been apprehended, or presented themselves for trial. Gov. Hale spent a large part of his time during the last two months in a most successful endeavor to adjust permanently, before the end of the year, all old feuds, so as to eliminate existing causes of friction between the different settlements.

LEPANTO AND AMBURAYAN.

The roads and trails in the province have been well kept up, and the Bontoc-Cervantes-Tagudin Road is in excellent condition for carts, and has been opened to automobile traffic as far as Butac.

The Cervantes provincial building has been improved, and part of it has been remodeled into a residence for the lieutenant governor.

The jail has been repaired, and offices arranged in it for the provincial doctor.

The waterworks have been completed and are appreciated by the inhabitants.

Notwithstanding the fact that he was suffering from a broken leg, Lieut. Gov. Kane made the arrangements for a most successful agricultural fair in Cervantes, at which more than 6,000 people were present, of whom over 2,500 were Igorots, Bontocs, and Kalingas, and over 800 were Ilocano traders. The intercourse on this occasion between the people of the lowlands and of the Mountain Province produced an excellent effect without the slightest friction or disorder. The exhibits of stock, textiles, and agricultural products were most creditable and have given a real stimulus to economic development.

NUEVA VIZCAYA.

Gov. Grove has shown great energy in advancing the welfare of Nueva Vizcaya.

Trails have been well maintained. The Bagbag-Isabela Road was finished as regards grade and dirt work and opened to cart traffic on June 1. The traffic soon showed that the original plan for an 8-foot road for light cart traffic, to be open only during the dry season, was inadequate, and the road is being enlarged to a width of 18 feet. Eleven kilometers of this dimension were completed during the year, and the whole will probably be finished during 1915. The widening of the Villaverde Road was continued to kilometer 51.

Work upon it is proceeding rapidly, and upon its construction through to San Nicolas a most desirable means of communication between Manila and the provinces of Nueva Vizcaya and Isabela will be available.

General health conditions under the supervision of the health officer, assisted by sanitary inspectors, are improving steadily, owing to their frequent trips to the different barrios and sitios.

Nineteen wells have been sunk with the jet rig outfit, with the result that there has been a noticeable improvement in health during the year. This work will be prosecuted vigorously with the assistance of the people, who show their appreciation of good water by assisting with voluntary labor.

Public order has been very satisfactory. Except a few minor offenses, settled by township and justice of the peace courts, there were but four crimes against law and order tried by the court of first instance during the year. The arrival of the constabulary company at Maquebenga has caused a great improvement in conditions in that vicinity, and no disturbances of any kind have been reported for some months.

A determined effort is being made to give permanent possession of their lands to the inhabitants, with the result that many free patentees and homesteaders have perfected their claims. More applications for Torrens titles were considered at the last session of the court of first instance than in all previous sessions since American occupation. Many farmers have had their lands surveyed and will present their applications at the next term of court.

A number of new buildings of strong materials were constructed by the owners, and the value of their property is continually being increased by the construction of small communal irrigation canals, the clearing and leveling of land, making it suitable for irrigation, and the opening up of cheaper routes for the transportation and sale of their products. In the Christian communities nearly all families are landowners, while tenants are rare. There are no large holdings, and very few over 16 hectares.

As the inhabitants of the Cagayan Valley devote themselves almost exclusively to the growing of tobacco and corn, this section provides an excellent demand for all the surplus rice grown in Nueva Vizcaya, and the new road to Echague has enabled the provincial authorities to bring goods from Manila to Bayambong via Aparri at the low rate of $7\frac{1}{2}$ centavos per kilo.

Owing to the energy of the authorities but little damage was done by locusts, although the province was invaded a number of times by swarms from other provinces, so that the inhabitants were almost continuously engaged in the extermination of hoppers during the last eight months of the year.

Surra, foot-and-mouth disease, and rinderpest appeared, but, owing to the prompt quarantine instituted and the cooperation of the local with the provincial authorities, the outbreaks were confined to a small area, and the province is believed at present to be free of these diseases.

Great interest has been taken in public instruction, and it is believed that the province has as large a per cent of children in school as any other unit of the bureau of education. Schools and home

gardens have been of great value, and a demand for garden products has caused a much larger area than usual to be planted with vegetables, all of which are doing exceedingly well.

The work among the Ilongot and Negrito inhabitants on the east coast was continued by Capt. F. A. Whitney, P. C., during the absence of Capt. Wilfrid Turnbull, P. C., on leave. The latter has now resumed charge and is taking steps to make permanent the settlements at Calabgan and Pinagpatian and to teach agriculture to the Negritos and Ilongots.

PALAWAN.

The situation in Palawan has been satisfactory on the whole, although the physical situation of the Province and other existing conditions have always made improvement very difficult.

Acting Gov. H. J. Detrick has continued in charge of the affairs of the Province, to which he has devoted himself with much energy.

The vacancy caused by the voluntary resignation of Mr. John T. Clark as provincial treasurer, to enter into private business, was filled by the appointment of Mr. Amb. Pablo, promoted after successful service in other Provinces under the department of finance and justice.

To the great regret of the department, Mr. Finnigan, who was not only superintendent of the reservation at Aborlan, but also the teacher in charge of the Aborlan Farm School, was recently murdered by some escaped colonists from the Iwahig Penal Colony. During the three years and a half of his service he had improved the condition of the Tagbanuas living on the reservation very materially and had won their full confidence. Under his guidance they had begun to reside in comfortable houses, to raise an abundance of fruits, vegetables, and other foods, and were contented and happy. They had given up their nomad habits to such an extent that after his death 300 of them assisted in the pursuit of his murderers instead of deserting the reservation, as might have been expected. He deserves the highest praise for his excellent work and self-sacrificing devotion, and the people among whom he lived deeply regret his loss, which is much deplored by the department.

Every possible effort is being made to improve inland communications. Work on the trails has been pushed vigorously until there are 309 kilometers of provincial roads. One hundred and ninety kilometers of the Puerto Princesa-Bonobono Trail are passable on horseback. A first-class trail connects Punta Separacion with Alfonso XIII on the west coast, and the Tapul-Bahile Trail connects with Buenavista on the east coast. One-third of the Coron-Busuanga Trail has been finished, and horses may be ridden over the entire length at present. A second-class road from Cuyo to San Carlos is under construction.

A new dock at Puerto Princesa is being built, and also a water system, which will bring water 2 kilometers and render the place no longer dependent upon cistern water.

The Coron water system has been finished, and the extension to the Cuyo water system will soon be completed.

The state of public order continues satisfactory. At least five years have passed since any Moro raids have occurred north of Brooke's Point, and the Moros south of that point have been kept well under control, and appear to be contented. On their petition, approved by Lieut. Reid, the limits of their reservation were extended to the west coast in March, 1914, and thus far no ill effects have resulted.

The Legislature created the position of lieutenant governor and appropriated adequate funds for it, to take charge of the southern portion of Palawan, which includes the Aborlan reservation and the Moro country, with headquarters at Brooke's Point.

Lieut. Frank Reid, who had been in charge of these Moros for some years, but had been recalled to his regiment in August, 1914, resigned his position in the Philippine Scouts early in 1915 to accept appointment to this new position, in order to devote his entire attention to improving the economic and agricultural condition of the inhabitants and to advancing their civilization.

Mr. C. M. Weber, who had assisted Lieut. Reid by taking charge of the Moros on the west coast, was appointed to take his place during his temporary absence, and subsequently to succeed Mr. Finnigan at Aborlan.

Owing to the efforts of the head forest ranger the cañgin evil is abating, being replaced by a marked activity in homesteading.

The giving of definite titles to lands is being facilitated in every way.

The province is entirely free from rinderpest and surra, and a plague of locusts was quickly exterminated by the energetic action of the authorities and people of Cuyo.

The exceptionally dry season caused a failure in the rice harvest, which was made up in part by the planting of quick growing crops and garden vegetables.

The main exports are timber of various kinds, rattan, tan barks, nigue, almaciga, and beeswax. Much of the rattan is taken to Kudat and thence to Borneo and Hongkong, from where it is shipped not only to the United States and Europe but to the Philippines. This is due to the fact that the natives do not know the proper method of preparing rattan, but it is hoped that the investigations already made by the bureau of science will make it unnecessary hereafter to ship rattan to Singapore and Hongkong for treatment.

Communications were maintained during the year by the steamship *Panglima*, operated by Pujalte & Co., which touched at Coron, Culion, Cuyo, Araceli, Puerto Princesa, Brookes Point, and Balabac, thus giving an outlet for the products of the island. The provincial steamer *Florence* makes trips between the different points and also to Kudat, Borneo, thus relieving the inconvenience caused by the withdrawal at the beginning of the year 1914 of the special customs authorization for the clearance from Balabac to Kudat of boats under 30 tons capacity.

A controversy arose during the year between one of the lumber companies and the province over the debts of Tagbanua laborers. The department referred the matter for investigation to a committee consisting of Gov. Detrick, Assemblyman Sandoval, and Mr. Finnigan, the superintendent in charge of the Tagbanua Reservation at

Aborlan. Following the report of this committee, very substantial reductions in these debts were made by the employers, and regulations were established by the department by which all advances to Tagbanua laborers are prohibited unless approved by the superintendent, and then only for limited purposes and in small amounts. It was also provided that all wages must be regularly paid in cash, without deduction, excepting for the small advances authorized by the superintendent and excepting deductions of not more than one-half of the wages until the remaining old debts are discharged.

Under this system the Tagbanuas have at least begun to receive actual cash for their labor, instead of getting farther and farther into debt the more they worked.

The province has been provided with a district health officer and three sanitary inspectors.

Three more sanitary inspectors are necessary to protect Coron, Bacuit, and Cuyo, which are still without any medical assistance of any kind, and the department hopes to be able to provide them soon.

By the energy of Mr. Amb. Pablo, the acting treasurer, and that of the local officials cooperating with him, the revenues of the province were increased by 70 per cent in 1914.

MINDORO.

Mr. Juan Morente, jr., was appointed governor on February 12, 1914.

Large numbers of cacao, coffee, orange, and mango trees have been set out, and promise to be of great value to the province in the near future. At present there are about 150,000 coconut trees bearing fruit, but very soon over 400,000 will be productive, and a great increase in the export of copra may be expected.

Good success has attended the corn demonstrations conducted by the schools, and also the home and school gardens. The example set by these institutions has been beneficial in increasing the food supply in general.

Cattle raising is also proving a successful industry, and lumber, sugar, hemp, gums, and other forest products are also exported.

The lack of communication has been one of the great handicaps of the province of Mindoro, but work has been progressing on the construction of roads, and the recent appropriation of ₱30,000 for this purpose will give an impetus to the growth of the province by opening rich agricultural lands in the vicinity of Lake Naujan, which are now inaccessible.

There are at present eight artesian wells, and more will be provided as fast as possible.

Outbreaks of cholera were suppressed by the energy of the officials of the bureau of health.

Owing to the death from malaria of Mr. Jesse D. Ward, the Mangyan agent, work for this people has been interrupted, but funds have been made available, and plans are being perfected for assisting them with schools, exchanges, and permanent settlements.

The supervisor-treasurer, Mr. Thomas I. Weeks, has been very efficient in his management of the funds of the province, and has been most energetic in projecting and carrying out plans for the economic development of the province.

NON-CHRISTIAN INHABITANTS' FUND.

The provincial boards of Albay, Antique, Ambos Camarines, Bataan, Capiz, Ilocos Sur, Iloilo, Isabela, Mountain, Mindoro, Nueva Ecija, Nueva Vizcaya, Occidental Negros, Oriental Negros, Palawan, Pangasinan, Rizal, Tarlac, and Zambales have shown a most gratifying willingness to accept the suggestions of this department that the non-Christian inhabitants' funds, which have been accumulating for many years, should be expended for the benefit of the non-Christians, and have made appropriations for industrial and agricultural schools, plow animals, seeds, agricultural implements, trails, and such other means of advancement as seemed advisable in each case.

In many instances these funds have been used for gathering together the nomadic non-Christians in settlements where they could be assisted under proper superintendence to better their conditions.

Special reservations of land have been made for these wandering people in a number of places, and, under the necessary supervision, they have shown a willingness to give up the making of *cañigins*, and to settle permanently upon the site reserved.

The bureau of forestry has taken special interest in this work, as it tends to prevent destruction of the forests, and the bureau of education has constantly given valuable suggestions and even consented in many cases to assume direct charge of the work, which is being conducted along lines approved by experience.

THE BUREAU OF HEALTH.

PERSONNEL.

The position of assistant director, which had been vacant for many years, was filled on January 22, 1914, by the appointment of Dr. Vicente de Jesus, who has cooperated most harmoniously with his American colleagues in the bureau.

During the absence of Dr. Heiser, the director of the bureau, who was on leave in the United States from the middle of July to the latter part of November, the commanding general courteously permitted the department and Dr. de Jesus, who was acting director of the bureau, to consult Maj. Edward L. Munson, of the Medical Corps, United States Army, in an advisory capacity, a favor for which the department and the bureau are most grateful.

Shortly after the close of the year, but before the writing of this report, Dr. Heiser, who had been for 12 years in the service and for 10 years director of health, resigned to accept a position of even greater importance with the Rockefeller Institute. He is to investigate health and sanitary conditions in the Orient, to prosecute researches into tropical diseases, and to institute measures for their prevention on a large scale.

While the Philippine Islands will share in the benefit of this great work, his resignation, nevertheless, is a serious loss.

The success of Dr. Heiser's service in the Philippines has attracted the attention of observers throughout the world, and the department, as well as the whole people of the Philippines, is greatly in his debt.

Dr. John D. Long, who is a surgeon of the United States Public-Health Service, has been appointed, at Dr. Heiser's suggestion, to succeed him. Dr. Long became very well known to the Filipino people during his past years of efficient service. He speaks Spanish and Tagalog fluently, and his appointment, which is most satisfactory to the department and to the bureau, has been received with great cordiality by the Filipino people.

FILIPINO AND AMERICAN COOPERATION IN THE HEALTH WORK.

It has been the greatest satisfaction to find not only the numerous Filipino members of the bureau of health but also the leading Filipino medical men, the Filipino press, and the Legislature willing and even eager to support the work of the bureau in every possible way. No one could ask for a more helpful disposition or more active cooperation, and even the general public, which in every community is likely to obstruct sanitary measures, is here certainly remarkably acquiescent and amenable to reason.

GENERAL HEALTH CONDITIONS.

The effectiveness of the bureau's work has continued its steady gain without interruption, as is shown by the decrease in the death rate in Manila, which is the only portion of the islands having complete vital statistics.

These statistics (printed in full in the report of the director of health) show that the average death rate for the fiscal year 1914 was 24.67 per thousand, which is the lowest on record for any fiscal year. The rate in the calendar year 1913 was, however, 23.82, and owing to the change in the period comprised in the fiscal year by which it has now been made to coincide with the calendar year, this figure may be taken into consideration.

The first and second quarters of 1914 each showed a better record than over before, and the third and fourth quarters were better than any year excepting 1913.

In June, 1914, the death rate was the lowest for any month on record.

These records for Manila reflect the general conditions throughout the islands, as compared with former years. Manila is the center of communication with all parts of the Archipelago, and no considerable damage could occur elsewhere without being in some way reflected here. In fact, the conditions in the provinces have been unusually good.

In Cebu, which has vital statistics more reliable than those generally to be found outside of Manila, the death rate was only 16 per thousand, which was the lowest ever known there.

SITUATION IN THE PROVINCES.

For some years representatives of the provinces have felt that the city of Manila was receiving an unfair proportion of the sanitary service, as out of a total expenditure of the bureau of health, for instance, for the year 1913, of ₱2,307,218.78 for operating expenses, depreciation, and interest on capital account, only ₱1,194,901.51, or

about 52 per cent, had been assigned to the whole territory outside Manila, though it has 97 per cent of the population.

It must not be assumed, however, that the city should have reimbursed the insular government for the whole of its share of this expense, because it is only one item in a long account of mutual services which has never been balanced.

Also, as Manila is the center of communication for all parts of the Archipelago, the first principles of sanitation require that it should be the earliest point to receive attention.

There seems to be a general agreement that the time has come for greater attention to the sanitation of the provinces, and during the past year the bureau has made considerable progress in this field. The act passed by this Legislature reorganizing the bureau contained thoroughly satisfactory legislation for this purpose, and will render greater advances possible during the coming year.

In Cebu the district health officer reports that artesian wells and reservoirs have largely replaced the insanitary wells; vaccination of all the inhabitants is nearing completion; a threatened invasion of cholera was successfully repelled; the campaign against soil pollution has made good progress; persons requiring hospital care were transferred from all parts of the province to the Southern Islands Hospital and treated; all known lepers have been isolated; trachoma examinations have been made in the schools; and, in general, modern health measures have been very successfully carried out, with the result, as before stated, that the available figures show a death rate below 16 per thousand.

Sanitation in the department of Mindanao and Sulu has not been under the bureau of health, and so this department can not be given credit for the remarkable work which has been done there.

It may be proper to refer to it, however, in order to complete the summary of the health and sanitary work of the entire Philippine Islands.

This work in Mindanao and Sulu has been conducted by the Army and under charge of Maj. E. L. Munson, Medical Corps, United States Army. In July he was succeeded by Dr. Jacobo Fajardo, who has successfully continued the work.

Three hospitals and 47 dispensaries have been established; drinking water reservoirs are under way in Jolo and Zamboanga; sanitary pails are being installed; 34,000 vaccinations have been performed; municipal sanitation in some of the towns is good and much progress is being made in others. The establishment of dispensaries and hospitals has not only resulted in bringing relief to the sick and suffering, but has been a most important factor in promoting order.

The introduction of Filipino doctors and practicante among the Moros has proved a helpful measure toward the pacification of the Moro Province.

SANITARY MEASURES.

TRAVELING EXHIBIT.

A railroad car has been equipped as an exhibit and has made trips into the provinces in charge of Dr. Simpao, who is making an effective educational campaign by means of illustrated lectures as well as by the exhibit.

SOIL POLLUTION.

The campaign against soil pollution has made much progress during the year. Health Bulletin No. 13, entitled "The Disposal of Human Wastes in the Provinces," was issued, and its contents are being taught in the public schools. As a result of the efforts put forth it is estimated that at least 100,000 sanitary pails have been installed.

MANILA WATER SUPPLY.

The Manila water supply should be enlarged, as during the dry season, which ended in the month of June, it became necessary to supplement the supply from the Montalban watershed by pumping from the Mariquina River into the city reservoir. As previous experience has shown that when such measures were necessary an increase in morbidity and mortality invariably resulted, it was decided to use calcium hypochlorite for the sterilization of the water. The average bacterial count at the reservoir was 200 colonies per cubic centimeter; in the city, after sterilization, the count averaged from 37 colonies per cubic centimeter to 55 colonies per cubic centimeter, and the usual increase in morbidity and mortality was averted. After the sterilization, the colon bacillus was found at rare intervals only.

Notwithstanding the success of these measures this year the shortage of water in Manila during the dry season is a serious menace to the safety of its population, and steps should be taken immediately to provide an increased supply, which should also be available for those towns in the Mariquina Valley and near Manila in which the installation of artesian wells has proved impracticable.

PROVINCIAL WATER SUPPLY.

In the provinces successful artesian wells have been drilled as follows:

Fiscal year:

1914.....	150
1913.....	145
1912.....	147
1911.....	224

During the six months between the fiscal year 1913, which ended June 30, 1913, and the next fiscal year, which began on January 1, 1914, 84 such wells were drilled.

SANITARY MARKETS.

The construction of sanitary markets has been encouraged throughout the islands, and loans are being made by the insular government to municipalities for the purpose of constructing them, as in the past. These projects are becoming increasingly popular, as experience has shown that they are a prime factor in improving the health of the community, and the rentals form a steady source of income for the municipalities.

GARBAGE RECEPTACLES.

Garbage receptacles of standard type are now available in Manila, and are rented to individuals by the city for sums ranging from 8½ centavos per month to 25 centavos per month, depending upon the size and type of can desired. This has resulted in a much more universal use of garbage cans than formerly.

MILK.

The fresh-milk supply of the city of Manila is still very unsatisfactory, although a few dairies have complied with the standards of the commission on milk standards appointed by the New York milk committee. The Legislature has given an appropriation to the "Gota de Leche Society for the Protection of Infants" for the construction of a building in which to place the milk-sterilizing plant which was donated by Mr. Nathan Strauss, of New York. As soon as this building is completed and the plant installed it is believed that much more rapid progress can be made in improving the milk supply through the demonstrations that may be made here.

Canned milk has been imported in large quantities on account of the poor quality of the fresh milk available in the islands. Excellent canned natural whole milk can be bought for about 24 centavos per liter. Due to competition, however, some dealers imported skimmed canned milk. As this was not suitable for food for children, the Legislature placed a tax upon it of 20 centavos for each kilogram of gross weight of milk and containers, which has effectively discouraged its further sale.

MOSQUITO FISH.

A supply of mosquito fish (*Gambusia affinis*) from Hawaii were introduced into the fish ponds, esteros, and fountains of Manila for the purpose of destroying mosquito larvæ. At first, a number of these fish were destroyed by native mud fish, locally called dalag, but now they appear to be gaining headway against these enemies, and may eventually be of considerable use.

INFANT MORTALITY.

The committee composed of Dr. W. E. Musgrave (chairman), Dr. Luis Guerrero, Dr. Proceso Gabriel, Dr. Joaquin Quintos, and Dr. José Albert, appointed under the authority of an act of the Legislature to investigate the cause of the excessive infant mortality in the Philippines, made a report showing that over 60 per cent of the infants born fail to reach the age of 5 years, most of them dying from preventable causes.

In a country which has such resources and such need of labor for their development, this is a very serious misfortune, even if we consider nothing but the economic aspect.

Lack of adequate sanitation in the provinces outside of Manila; defects in the food supply, especially those which produce beriberi (which causes more of the deaths than any other disease); lack of

social betterment activities, including especially lack of facilities for training midwives; and the want of a proper system for isolating the insane and preventing their propagation—these, in the judgment of the committee, are the principal causes for the extraordinary infant mortality.

These causes are discussed elsewhere in this report, excepting the question of the insane, which has received considerable discussion and study during the year, but has not reached a formulated program.

MIDWIVES.

The Legislature passed an act authorizing courses in midwifery in the Training School for Nurses, and the instruction will begin in April, 1915.

SPECIFIC DISEASES.

CHOLERA.

Cholera has occurred in the Philippine Islands in the years 1882, 1892, 1902, and every year since. In 1914 it appeared in July, almost simultaneously in Manila and the province of Rizal.

Upon the departure of Dr. Heiser shortly after the beginning of this outbreak on his long overdue vacation, Maj. E. L. Munson, Medical Corps, United States Army, was courteously permitted to advise the department and the bureau on the suppression of the disease. Investigation showed the existence of a large number of cholera carriers, and the bureau found it necessary to isolate these persons in San Lazaro hospital for periods of about 10 days each. In the early stages of this campaign some opposition occurred because these patients were apparently in perfect health, and they and their friends could not understand why their liberty should be interfered with. The bureau, however, explained the necessities of the situation with the greatest patience to all persons interested, and by this means and through the cooperation of leading Filipino physicians (who gave it most readily and heartily), and also of the press, the opposition was removed, and the disease was soon effectively controlled, never reaching the proportions of 1911 or any of the preceding years.

LEPROSY AND THE CULION LEPER COLONY.

Dr. Paul C. Clements, as director, has continued his successful administration of the colony at Culion, assisted by Dr. José Martin, the assistant director, and upon his retirement by Dr. Vicente Frias. The Sisters of St. Paul de Chartres and Fathers Tarrago and Tomas have continued their devoted work.

As a result of investigations conducted by a committee of the Philippine Assembly and by the department in consultation with Commissioner Ilustre, Drs. de los Angeles and Santos of the Assembly committee on health, Dr. Velarde of the Colegio Medico Farmaceutico, Villa Real of the bureau of justice, and Mr. Miranda of the Assembly staff, several changes were made at the colony.

Compulsory labor on public works was abolished, but at the same time payments of money gratuities were discontinued to all the able-

bodied men and a wage scale for all comers was substituted. This system has provided better and more regular labor at less cost and it has also had a tonic moral effect toward making the colony as nearly as possible a normal community.

The effort to encourage colonists to undertake normal occupations, especially agriculture, has been continued by the building of a road into the adjacent farming land, by legislative provisions for an agricultural supervisor, and for work animals and agricultural implements. The systematic planting of coconuts has been begun.

The nursing personnel was increased by the addition of two more Sisters of St. Paul de Chartres and the demand for more medical assistance was met by the establishment of a new medical position by the Legislature in the appropriation act. This position has been filled by the appointment of Dr. Oswald E. Denney, who, in addition to his clinical work, has undertaken a systematic research into the causes and transmission of leprosy.

Pending an increase of the appropriation the ration was improved without added expense by slightly reducing the quantity of meat on meat days and using the resultant saving to provide fish for additional days, so that either meat or fish was issued for every day in the week. The Legislature has now increased the appropriation for food from ₱200,000 to ₱240,000 so that still further improvements can be made.

While the methods of diagnosis preliminary to the transportation of patients to Culion were as secure as possible against error, it appeared that they were not sufficiently convincing to the patients and their friends, and an unfortunate impression existed that errors were occurring. This impression arose from the fact that cases adjudged to be positive upon the report of one physician would frequently show negative results on examinations by other physicians. The reason for this was that the leprosy germs are sparsely distributed in the system, so that any number of negative slides might result even from an unquestionably positive case; and so while any number of negative slides should be overruled by a single positive one. The general public, however, could not be expected to know this fact and therefore leper suspects and their families would be filled with false hopes upon receiving negative reports and with bitter doubts of the accuracy of positive reports.

To devise for the department a solution of these conditions a committee was appointed, consisting of Dr. Fernando Calderon, of the University of the Philippines, assistant dean of the College of Medicine and Surgery, and assistant chief of the Philippine General Hospital division of the bureau of health; Dr. I. Santos, of the Philippine Assembly; Dr. A. P. Goff, the chief of the San Lazaro Hospital division; Dr. E. Mercado, of the bureau of health; Dr. John A. Johnston, of the bureau of science; Dr. Luis Guerrero, representing the Colegio Medico Farmaceutico; and Mr. C. C. Batchelder, of the secretary's office.

This committee recommended the formation of a standing committee of three, consisting of one American, Dr. Johnston, of the bureau of science, and two Filipinos, Dr. Mercado, of the bureau of health, who had given much study to the subject of leprosy, and Dr. Ordóñez, of the Colegio Medico Farmaceutico, to pass finally upon all microscopic analyses, and especially to make their examination of all

slides at joint meetings, so that they should all pass upon the same slides and make a united report.

This recommendation was put into effect.

The same committee recommended the construction of two inexpensive buildings at San Lazaro Hospital for isolation of suspects, pending final diagnosis, so as to avoid danger of their being infected by the positive cases.

In order to give the colonists the satisfaction of seeing friends and relatives, and also to correct prevailing ideas about the conditions at the colony, the department arranged for a holiday visit of relatives and friends of the lepers from various parts of the islands. At the same time a delegation representing the Women's Club of Manila visited the colony, carrying a bountiful shipload of Christmas gifts. For the entertainment of these visitors the colonists provided an elaborate and successful program of festivities, including a concert, baseball and other athletic games, a competitive decoration of houses, a parade of decorated rafts, and an original play in Tagalog. These excursions appear to have worked a considerable change in the feeling not only of the colonists but of the families and friends from whom they are separated.

Following this celebration a library of some 7,000 volumes, collected largely by Commissioner and Señora de Veyra, has been sent there.

BERIBERI.

Beriberi caused 1,042 deaths during the year in Manila alone. It is one of the chief causes of the alarming excess of infant mortality throughout the islands. Further trial of tiqui tiqui has confirmed its value as a specific, but it is expensive, and the bureau of science was able to produce only enough for treatment of 700 infants. The permanent solution of the problem appears to lie in preventive measures. The experience of the year has strongly confirmed the opinion that the disease does not occur where unpolished rice, instead of polished, is used, and therefore I concur in the recommendation of my predecessor that the use of the polished variety be discouraged by taxation.

MALARIA.

Malaria was the subject of extensive investigations made during the year by the bureau of science and reported by Dr. M. A. Barber. The result indicates that the disease is transmitted only to small extent, if at all, by the *A. rossi*, and not extensively by the *A. maculatus*, but principally by the *A. febrifer*. As the *A. febrifer* breeds principally along the edge of rapidly flowing streams, where experience appears to show that it can be effectively eradicated at comparatively small cost, this discovery is likely to be of much practical value. The bureau distributed throughout the provinces 785,000 tablets of quinine of 5 grains each. While undoubted benefit has resulted from their distribution, no definite data have so far been obtained.

TYPHOID FEVER.

Typhoid fever is probably widely distributed over the islands, but no large outbreak or unusual condition has been reported. Every

effort is being made to suppress this disease by vaccination, improvement of water supply, and other sanitary measures, and also by a systematic educational campaign through lectures, pamphlets, and letters.

PLAGUE.

Plague, both rodent and human, has disappeared from the islands as a result of the vigorous antirrat campaign, accompanied by the active enforcement of the ordinance in reference to rat-proof construction, and probably assisted to a great extent by the flood which occurred during September. The last case occurred on September 12, 1914. Measures will be continued with vigor, however, to prevent a return of the disease.

TYPHUS FEVER.

Typhus fever occurred only in a small outbreak in Mindanao, reported by Capt. George B. Foster, Medical Corps, United States Army. Eighteen cases, with one death, occurred. The disease was probably introduced by some Japanese laborers who came from Japan at a time when it was prevailing there very extensively. The outbreak was satisfactorily and rapidly handled.

CANCER.

Cancer has been generally supposed not to be as prevalent in the Philippines as in temperate countries. The opportunity afforded, however, in the Philippine General Hospital for the study of this disease rather indicates the contrary, but sufficient statistics have not as yet been obtained to justify a positive statement.

DIPHTHERIA.

Diphtheria occurred at intervals in the city of Manila throughout the year, but at no time was the number of cases sufficient to cause any particular uneasiness.

THE PHARMACY EXAMINATIONS.

In the early part of the year the irritation which had been growing for a long time in regard to the policy of the pharmacy board became urgent. Protests were lodged against the character of the examination prescribed by this board for pharmacy licenses, charging that the examination was of an arbitrary, catch-question type, better suited to prevent competent and well-trained pharmacists from entering the profession than to keep the unfit out.

Two large public hearings were held on this matter, after which the department appointed a committee which scrutinized the examination paper and advised the elimination of a number of questions as unsuitable. No other changes could legally be made, but the board was requested to mark the papers in a liberal spirit in order to pass those who were evidently qualified for efficient service. The board accepted these suggestions and a more successful examination

was held. Protests and appeals of disappointed candidates were referred to an independent committee, which sustained the board.

Subsequently, however, being unwilling to follow the opinion of the attorney general that they were bound by law to issue a license to a certain pharmacist who had practiced under the Spanish government, and being also unwilling to adapt future examinations to what appeared to be the just requirement of the islands, all three members resigned and successors were appointed.

THE PHILIPPINE GENERAL HOSPITAL.

REORGANIZATION.

After several public hearings and numerous conferences with persons interested some changes were made in the administrative organization of the hospital.

The former distribution of responsibility between the bureau of health, represented by a superintendent of the hospital responsible for certain phases of the work, the College of Medicine and Surgery, represented by a chief of staff responsible for certain other phases, and a School of Nursing, more or less independent of both, was replaced by a system in which all responsibility was centralized in one person, who is both chief of the Philippine General Hospital, division of the bureau of health, and dean of the College of Medicine and Surgery in the University.

Thus far the change has worked well.

PERSONNEL.

Under this plan Dr. W. E. Musgrave, dean of the College of Medicine and Surgery and chief of staff in the hospital, was appointed chief of the Philippine General Hospital, division of the bureau of health. He has succeeded in eliminating public dissatisfaction to a large extent and in stimulating a spirit of loyal cooperation among the officers and employees.

Prof. Fernando Calderon, vice dean and chief of the department of obstetrics in the College of Medicine and Surgery, has been appointed assistant director of the hospital.

PAY-PATIENT DEPARTMENT.

In order to avoid a feeling among private physicians that some of them might be discriminated against in caring for their private patients in the hospital, the pay-patient section was entirely separated from the other service of the hospital.

MEDICAL ATTENDANCE FOR GOVERNMENT EMPLOYEES.

This subject is discussed in connection with the act of the Legislature which dealt with it.

The service has been made more satisfactory by the special employment of two attending physicians (Dr. George B. Angle and Dr. Perpetuo Gutierrez), two attending surgeons (Dr. P. K. Gilman and Dr. José Eduque), and an obstetrician (Dr. Mariano Tolentino).

NURSING AND MIDWIFERY.

The legislation in aid of these services is mentioned elsewhere. The school has steadily grown in efficiency, under the successful management of Miss Elsie P. McCloskey, the superintendent.

CLINICAL LABORATORY.

With the approval of the director of the bureau of science, the clinical laboratory, which was a branch of the bureau of science, though located in the hospital, was transferred to the management of the director of the hospital.

PROFESSIONAL WORK OF THE HOSPITAL.

During the year 7,193 patients were treated within the hospital proper, 60,675 patients were given free dispensary service, and 21,174 patients were dealt with by the receiving service (including attending physicians and surgeons offices), or a total in all services and departments of 175,728 "patient visits" for the year, which makes an average of nearly 600 for each working day.

Of the patients treated within the hospital proper, 732 were Americans; 6,125 Filipinos; and 336 were of other nationalities.

DORMITORY SPACE.

*The overcrowding of physicians, nurses, and pupils has been somewhat relieved by the completion of the free-dispensary building, with space for 30 internes and resident members of the staff, and by the renting of the old Mercado dormitory, formerly occupied by the bureau of education, for occupation by the young male nurses and pupils of the training school. These young men, by unanimous vote, very courteously gave up their more attractive quarters in one of the dormitories on the hospital grounds and accepted these more distant accommodations in order that the young women in the school might have the better dormitories and conveniences.

RECOMMENDATIONS.

The hospital needs more dormitory space and pavilion for the care of delirious and noisy patients.

The establishment of a public welfare and social service department should be provided for in order to relieve the congested wards from patients who, though convalescent, still require some attention.

LEGISLATION.

Several of the acts passed by the Legislature in aid of the health service were not finally enacted until the beginning of the calendar year 1915, but as they really form a part of the history of the Legislature of 1914, they will be referred to here.

THE HEALTH REORGANIZATION ACT.

This act is the most useful single piece of legislation of this Legislature in support of sanitation and health. It was approved by the Colegio Medico-Farmacéutico and the Medical Association of the Philippines, as well as by this department.

It provides a systematic organization of personnel, radiating from the director through chiefs of division, deputy chiefs, medical inspectors, senior surgeons, and junior surgeons, all arranged in regular civil-service grades, with a secure system of civil-service entrance and promotion.

The organization is arranged in four divisions, one each for general inspection, sanitation in the provinces, sanitation in Manila, and hospitals and dispensaries.

Geographically the system spreads out from Manila into districts and subdistricts, covering each section of the Archipelago, and very satisfactory provisions are made for organizing provincial and municipal sanitation as a part of the general service, but with obligatory financial assistance from the local revenues.

A feature of the bill which I believe will prove helpful and important is the creation of an advisory council of hygiene of seven members, to be appointed by the Governor General, on nomination of the secretary of the interior, one each from the Colegio Medico-Farmacéutico, the Philippine Islands Medical Association, the University of the Philippines, the University of Santo Tomás, and the bureau of health, together with one lawyer and one property holder.

The powers of this council are entirely advisory, but in a service which includes officers of a different race from the public the cooperation of such a body is expected to be most useful.

MEDICAL SERVICE FOR GOVERNMENT EMPLOYEES.

At the beginning of the American occupation it was provided that the government should furnish medical attendance to its employees and their dependents without charge. This was due to the scarcity of medical men in those days, and the peculiar situation of American employees.

Under the conditions of recent years, however, when the persons authorized to receive this service have come to number nearly 150,000, mostly Filipinos, the privilege has been considered by many to be no longer desirable. Thus far it has been possible only because relatively few of the Filipino employees realized their right to it or cared to take advantage of it.

Also, when applied to so large a number of persons, it has come to be a serious government competition with private physicians and pharmacists, a competition which has been particularly unfair in that government employees who preferred to consult private physicians were debarred from receiving the special services of the hospital and laboratory on the same terms with their fellow employees who consulted the official physician or surgeon.

Under these circumstances the Legislature passed an act abolishing the privilege, effective January 1, 1918, a date beyond the period of the longest existing contract, but limiting it, in the meantime, to

the employee himself, his wife and minor children (instead of all dependents, as heretofore), and excluding treatment for diseases caused by fault of the patient.

Government employees, however, are to be allowed a priority in admission to free wards and a discount of 33 $\frac{1}{3}$ per cent from the usual charge for all hospital, dispensary, laboratory, or other special services.

This arrangement was reached after several hearings, in which all points of view were presented. It has been accepted as fair by all parties.

GOVERNMENT CHARITIES.

In the past practically all of the public charities have been administered by the bureau of health, though the organic laws also provide for the administration of matters of a charitable nature by the secretary of public instruction.

In order to eliminate the duplication of effort by the department of public instruction, the bureau of health, and private institutions, the Legislature passed an act to bring about the coordination of all these institutions under a board within the department of public instruction, but containing the secretary of the interior and the director of health as members.

THE ACT REGULATING THE PROFESSION OF MEDICINE.

The medical profession in the islands has been injured by the continuation of a practice inherited from the Spanish occupation of licensing a class of inadequately trained practitioners known as cirujanos ministrantes, a sort of second-class physician.

These cirujanos received a distinct type of license, which allowed them to practice in any place so long as no regular physician settled there.

The arrangement created much friction in many directions, which has been constantly increasing, because the graduation of these practitioners has been continued in added numbers year after year.

The present Legislature, after several public hearings before a committee, in which all points of view were thoroughly discussed, passed an act equally satisfactory to all parties. On the one hand, it protected the just rights of the cirujanos already licensed (including those who had already begun their studies) by allowing them to practice wherever now established; and, on the other hand, it protected the medical profession and the public by prohibiting any further licensing of this class of practitioners.

The colleges which have been training these cirujanos are making plans for improvement of their curriculum so as to prepare students only for the regular medical examination.

THE PROFESSION OF DENTISTRY.

The dental profession has been in an even more unfortunate condition.

Only 29 persons in the whole Archipelago are qualified as regular dental practitioners, and no school in the islands has been producing any more.

Seventy-nine persons are qualified as second class, or cirujano dentistas, and several schools have been rapidly turning out more of these insufficiently trained practitioners.

The law has permitted these cirujanos to practice, but only in places where no regular dentist is established.

To remedy this situation the University of the Philippines has just introduced courses in the medical school for training men to take the regular license; and Santo Tomás University, and possibly other existing dental colleges which have been training men in the past for the cirujano license, are expected to improve their courses in order to give the regular degrees.

In an act which revises the former law regulating the practice of dentistry, the Legislature has limited the future practice of dentistry to those who are either fully qualified dentists or cirujano dentistas already licensed or matriculated. Such cirujanos are permitted to practice anywhere in the islands as soon as they have had three years' experience, prior to which time they are limited to places in which no fully qualified dentist is established or in which they are taking studies in dentistry.

In another act the Legislature has authorized a board of three dentists to examine school children, the expenses of the service being undertaken by private persons. Dr. Louis Ottofy, Dr. Antonio F. Oliveros, and Dr. A. V. de Dios were appointed members of this board and have generously consented to serve.

THE REGULATION OF THE PROFESSION OF NURSING.

The necessity for nurses throughout the islands is so great and the supply so limited that it is inadvisable to require special examination for nurses' license, and accordingly the act passed by this Legislature authorizes the issue of such licenses to all persons holding diplomas from a hospital school of nursing having facilities and curriculum of a certain standard. It permits any intermediate graduate, if person of good moral character and not guilty of abuse of the privilege, to practice as a second-class nurse.

THE HYDROPHOBIA PREVENTION ACT.

An act prepared by Dr. Heiser was passed giving the bureau of health authority to order the muzzling of dogs in any locality into which hydrophobia has entered or is in danger of entering.

THE APPROPRIATIONS.

For the year 1914 the appropriation for the bureau of health was ₱1,734,468.34, though the bureau had expended only ₱1,699,276.86 out of the ₱1,852,761.73 of its appropriation for the preceding year.

For 1915 the appropriation has been increased over last year to ₱1,840,596.70, which is satisfactory to the bureau, considering the necessities of economy.

LEGISLATION PASSED AT THE SESSION OF 1913-14, AFTER THE DEPARTMENT'S LAST ANNUAL REPORT.

The legislative session which occurred in October of 1913, passed the following acts of importance to the health service:

Act No. 2317. Amendment to food and drugs act requiring statement on the package of quantity or number of units in contents.

Act No. 2339. Section 72, placing a tax on skimmed milk. Section 124 provides for placing on skimmed-milk containers the statement, "This milk is not suitable for nourishment for infants less than 1 year of age."

Act No. 2342 prohibits false, fraudulent, or misleading advertisements or labels of patent and proprietary medicines, and the advertisement and sale of fraudulent therapeutic devices.

Act No. 2348 appropriates ₱5,000 for the encouragement of athletics.

Act No. 2370 appropriates ₱70,000 for the support of various specified semi-public charities, in lieu of a lump sum for the medical and surgical treatment of the poor.

Act No. 2376 appropriates ₱6,000 for extract of tiquitiqui to be used for the treatment of beriberi, distributed under the direction of the Philippine National League for the Protection of Early Infancy.

Act No. 2378 appropriates:

For filling in lowland in Manila.....	₱10,000
For San Lazaro Hospital, construction and equipment of new crematory.....	6,000
Culion leper colony:	
For hospital buildings and houses.....	35,000
For improvement of water systems and general repairs.....	15,000
Billid Prison, sanitation division, for permanent sanitary improvements.....	3,000
For the drilling of artesian wells.....	420,000

Act No. 2381 provides for the restriction of the use of opium and other prohibited drugs.

Act No. 2382 amends previous acts regulating the practice of pharmacy in the Philippine Islands.

Act No. 2395, among other things, appropriates ₱3,000 for repair of bureau of health buildings in the territories inhabited by the non-Christian tribes.

Act No. 2406 appropriates ₱21,170 for bureau of health work in the Mountain Province and subprovinces.

Act No. 2407 appropriates for the maintenance of public dispensaries and hospitals in Mindanao and Sulu.

Act No. 2408 provides a temporary form of government for the territory known as the department of Mindanao and Sulu, and, among other matters, provides for a health officer and assistants.

Act No. 2423 appropriates ₱130,000 toward the expense of dispensaries, hospitals, and health service in the department of Mindanao and Sulu.

ORDINANCES, CITY OF MANILA.

The following Manila ordinances have reference to matters of sanitation and disease prevention:

212 appropriates ₱6,000 for the construction of drains on Calles Melchor Cano and Lorenzo Chacon.

217 provides for rat-proof construction in buildings to be erected.

222 appropriates ₱4,791.85 to cover deficit on account of public charities.

225 defines areas which are not to be contaminated with rubbish or garbage.

226 appropriates ₱1,200 for the support of the orphan asylum maintained by the Belgian Canonesses Missionaries.

231 provides that pure water shall be furnished for drinking purposes to patrons of hotels, restaurants, boarding houses, etc.

RECOMMENDATIONS.

The following are the recommendations made by Dr. Heiser in his final report as director of health, with the department's comment:

(1) That an appropriation be made to construct additional buildings for the insane, and to provide for the maintenance of a largely increased number. The present facilities are entirely inadequate to meet the needs of even the most urgent cases of insanity.

This subject has received much study during the year, and various plans are under consideration.

(2) That legislation be enacted for the more centralized control of sanitation in the provinces, with sufficient appropriations to improve the sanitary conditions.

This was done.

(3) That legislation be enacted for the purpose of discouraging the consumption of polished rice among those who use it as a staple article of diet. The accomplishment of this object would probably result in the saving of many thousands of adult lives, prevent thousands of cases of illness, and bid fair to make a great reduction in the infant mortality.

Several conferences were held on this subject, as a result of which the department recommends the imposition of a progressive tax on polished rice, and that efforts be made to obtain international co-operation in gradually suppressing the use of it.

(4) That there be constructed an additional isolating pavilion for dangerous communicable diseases and better kitchen facilities for the insane at the San Lazaro Hospital.

These matters have been provided for.

(5) That steps be immediately taken to provide an increased water supply for the city of Manila. The experience of the past three years shows that the shortage of water during the dry season is a serious menace to the health of Manila. This increased water supply should be sufficiently adequate to provide water for those towns in the Mariquina Valley and near Manila in which the installation of artesian wells has proved impracticable.

The department concurs in this recommendation.

(6) An appropriation for a pupil nurses' home. The increased number of pupils at the Philippine Training School for Nurses authorized by the Legislature makes it urgently necessary to have additional living accommodations.

The department concurs in this recommendation.

(7) That legislative authority be given to abate nuisances on private property and to make the cost thereof a lien against such property.

A clause to accomplish this was introduced in the bill to amend the charter of the city of Manila and will undoubtedly be considered by the committee authorized by joint resolution of the two Houses of the Legislature to discuss this bill.

(8) That legislation be enacted to make compulsory the muzzling of dogs for several years. The enforcement of such an act and the regulation of the entrance of dogs into the islands would result in the eradication of rabies, which is now responsible for many deaths each year.

This was done by the Legislature.

(9) The appearance of cholera during the year has again forcibly demonstrated the desirability of additional research work with regard to this disease.

The department concurs in this recommendation.

(10) On account of the large number of persons who contract leprosy each year and the enormous expense of maintaining them, further research into the transmissibility and curability of this disease is urgently demanded.

The department concurs in this recommendation, hopes that all possible means of research will be applied to this subject, and will give every assistance and cooperation to their prosecution. As stated earlier in this report, the new medical position created by the Legislature for the Culion Leper Colony has been filled by Dr. Oswald E. Denny, a trained bacteriologist, who will devote a considerable portion of his time to this research.

(11) Additional funds should be made available to assist the provinces in the extension of the efforts which they are making to establish hospitals.

The department considers this a matter of great urgency. The hospitals should be small and inexpensive but numerous.

THE QUARANTINE SERVICE.

PERSONNEL.

The bureau of quarantine service of the Philippine government was conducted, as in the past, by officers of the Public Health Service of the United States detailed for duty in the Philippine Islands.

The officer assigned to duty at the quarantine office of the port of Manila assumed the duties of chief quarantine officer for the Philippine Islands.

Surg. Victor G. Heiser, P. H. S., continued to be the incumbent throughout the year, but during his absence, from July into November, Asst. Surg. B. J. Duffy acted in his place and rendered effective service, especially in the cholera campaign.

EFFECTIVENESS.

The regular quarantine stations were maintained at Manila, Mariaveles, Olongapo, Iloilo, Cebu, Zamboanga, and Jolo.

Severe epidemics of plague existed during the year at Hongkong and Amoy, and, indeed, all the way from Java to Shanghai; smallpox was prevalent in Singapore, Borneo, Sydney, and New Castle; typhus fever in Japan and on the China coast; yet, though all of these places are in close commercial contact with the Philippines, none of the diseases effected entrance through the quarantine, excepting a slight infection of typhus fever, which appeared in Dansalan, Mindanao, and resulted in 15 cases, with 1 death.

The enforcement of the quarantine laws and regulations of the United States, with the necessary machinery for giving them practical effect in the Orient, in the very midst of the world's great infected centers of quarantinable disease, affords an excellent opportunity quickly to test the effectiveness of the measures which are prescribed. A review of that experience shows that the Philippines can be protected against the invasion of such diseases with a minimum amount of disturbance to commerce. Stool examinations for cholera vibrios have proved effective against the entrance of cholera; antirrat measures, including a successful type of rat-proof construction of the new piers, precautions to prevent rats from passing out of

vessels, and fumigation to kill them on vessels, have prevented infections of plague, in spite of the fact that this disease is frequently brought to the doors of the Philippines; rigid vaccination of the personnel of all vessels has made smallpox almost a negligible factor; and precautions taken at ports of departure have kept typhus fever out of the islands for many years.

SANITARY CONDITIONS IN THE ORIENT.

The influence of America and American sanitary demands have improved the sanitary condition of the Orient more than is generally realized. In this general improvement the enforcement of the United States quarantine laws and regulations has had not a little part. All vessels bound for United States ports are required to carry out at every port of call measures and restrictions that are intended to prevent infection from gaining access to such vessels. This has created in the port cities an atmosphere of respect for such requirements. The agents of vessels have often demanded and required many sanitary improvements in foreign ports and also have had included in the port regulations many new sanitary requirements which act as a protection to the vessels. At a number of ports disinfection stations have been installed by shipowners or other persons, and the quarantine, bathing, and disinfecting operations, as well as the sanitary supervision of cargo required by the United States, has had a very widespread beneficent influence. The bureau of quarantine service is kept in touch with the occurrence of quarantinable diseases in all port cities by its close relationship with the officers of the United States Public Health Service, the same service which conducts the quarantine service in the Philippines, whose officers are stationed in the American consulates in foreign ports and whose work in the Orient is largely for the benefit of the Philippine Islands.

CHOLERA.

It seems clear that the outbreak of cholera in the Philippines in the summer of 1914 was not due to the introduction of the disease from foreign countries. The first cases occurred among natives of the islands who were permanent residents and had not come into contact with any foreign infections. The fact seems to be that the disease had become mildly endemic in the Philippines and that cholera carriers are more or less constantly present here.

During this outbreak the quarantine service cooperated most effectively with the bureau of health by examinations of all inter-island vessels which might have scattered the disease into other domestic ports.

GARBAGE FROM VESSELS IN PORT.

Considerable progress was made during the year in enforcing the regulations against garbage dumping by vessels anchored in port. This garbage, floating ashore, furnishes food for the rats along the water front. By preventing this and by trapping and poisoning them ashore it has been possible to exterminate the rats almost entirely from the shore district.

SMALLPOX VACCINATIONS.

The quarantine service made 9,000 vaccinations against smallpox during the year, including vaccinations of all steerage passengers.

AID TO OTHER SERVICES.

In addition to its regular service the bureau conducts the inspection of all immigrants in accordance with the United States immigration laws and also the meat inspection work under the food and drugs act.

RECOMMENDATION.

The chief recommends that an appropriation of ₱10,000 be made for a disinfecting building at Iloilo, as that port is now without adequate disinfecting facilities. An appropriation was formerly available for this purpose, but reverted to the treasury, owing to a delay in securing title to the land.

BUREAU OF LANDS.

PERSONNEL.

Mr. Manuel Tinio resigned as director on September 30, 1914, and was succeeded by Mr. Rafael Corpus on November 11, 1914.

At the time of his appointment Mr. Corpus was solicitor general and he was formerly a member of the Assembly, where he took an important part in the preparation and enactment of the cadastral survey act. Both by his equipment as a lawyer and by his knowledge of the land situation he is remarkably well fitted for his duties. His points of view toward the problems of the bureau, including especially the necessity of protecting poor and ignorant landholders and homesteaders, have proved in complete harmony with the policy of the department. He has also succeeded in placing the relations between the Americans and Filipinos in his bureau on a very satisfactory basis.

Mr. Walter E. Jones was appointed assistant director on April 11, 1914. At the time of his appointment Mr. Jones was provincial treasurer of Pangasinan; he had previously been provincial treasurer of Rizal, provincial treasurer of Tarlac, and still earlier a clerk in the bureau of internal revenue. In these positions he acquired an excellent knowledge of land questions and he has been most effective in the work of the bureau.

RECEIPTS OF THE BUREAU.

The receipts from all sources for the fiscal year 1914 aggregated ₱1,849,917.68, an increase of ₱51,081.48 over the collections for the fiscal year 1913.

THE PUBLIC LANDS, THEIR IRRIGATION AND THEIR RELATION TO THE FOOD SUPPLY.

At least 50,000,000 people could be fed from the lands of the Philippine Islands, and yet the actual production is so inadequate

that the existing population of only approximately 10,000,000 is compelled to import large quantities of food, even including rice.

Among the many causes which contribute to this unfortunate condition are some (such as rinderpest, locusts, lack of labor, and inefficient agricultural methods) which are the subject of consideration by other branches of the Government, but several extremely important causes lie, wholly or in part, within the field of the bureau of lands.

IRRIGATION.

Irrigation is insufficient throughout the islands, and it ought to be developed on a large scale, both on the public lands and in existing agricultural territory. By such a policy the value and productivity of the lands can be enormously increased with relatively small expense.

The department recommends that a systematic effort be made to this end. If large-scale irrigation works are not possible, funds could be loaned to put in pumps in many places.

LAND TITLES AND THE CADASTRAL SURVEY.

Almost as important as irrigation as a first basis for permanent improvement is the clarification of land titles. Of the 9,000,000 hectares of occupied lands in the islands only 548,693 hectares have thus far received registered titles under the American Torrens system, and many of the records of old Spanish titles have been lost or destroyed while others are without basis of property survey. The result is an oppressive handicap on agriculture, because the owners, or occupiers of lands, can not furnish adequate security for loans, and so are forced to pay excessive rates of interest, even as high in some instances as 50 per cent, and frequently 25 or 30 per cent.

To correct this and reduce the interest rates to a basis reasonably consistent with prosperous development, trustworthy surveys of the lands are absolutely essential, and they must cover practically the entire area of agricultural lands in the islands, as thus far they exist for only 1,287,535 hectares out of the estimated total of 30,000,000 hectares of agricultural lands, public and private.

This great task is already under way, and the system for accomplishing it appears to be satisfactory. This is the so-called cadastral survey, which is a method first used under Secretary Worcester in 1911 and formally established by law in February, 1913. It contemplates the surveying of all the parcels in large areas consecutively, thereby avoiding the prohibitive cost of isolated special surveys for scattered individual lots. The new appropriation act provides satisfactorily for an immediate increase in the surveying organization and for maintaining the regular system of training men, by school and field work, for still further increases.

As these surveys are completed they have to be made effectual by adjudications of the titles, and this is and always has been, an extremely difficult work to accomplish satisfactorily, owing to the enormous number of the cases.

Prior to the beginning of 1914 cases involving a total of 32,389 parcels had been filed, of which only 12,860 had been decreed, leaving arrears of 19,529.

The great increase in the surveying work brought about by the cadastral survey act caused the filing of cases covering the enormous number of 43,184 parcels in 1914, but the courts were unable to adjudicate more than 3,474 in the year.

Now, at the close of 1914, the accumulated arrears number 59,239, adjudications for which would require 20 years more at the present and past rate, regardless of the enormous number of additional parcels which the survey will continue to cover year after year.

This is a very serious matter, because every case means a difference between an interest rate of 25 or 30 per cent and one of 6 or 8 per cent. The delay also causes increased labor and expense to the government through the necessity of constant revision of the surveys to meet changing condition.

Whether the details of so enormous a number of purely routine cases, mostly uncontested, ought to be or economically can be imposed upon the courts is exceedingly doubtful. This question and plans for trying a system of arbitrators are under consideration by the secretary of finance and justice in conference with this department.

SETTLEMENT OF PUBLIC LANDS.

The area of unoccupied public lands is so vast that only a relatively small part of it is needed to furnish all the agricultural development necessary for the existing population, but the distribution of this necessary part is of great importance and must be made as speedily as possible.

Several parts of the islands are seriously overcrowded and new lands must be opened up for the surplus population.

Movements of this nature are already making successful progress—one in Cotabato, Mindanao, one in Davao, Mindanao, both chiefly under the supervision of Gov. Carpenter, of the department of Mindanao and Sulu; one in Nueva Ecija, Luzon, one in Cagayan, Luzon, and one in Bohol.

The general progress of distribution of the public lands by homesteads, sales, and leases is dilatory and unsatisfactory, and always has been, as appears from the following figures, showing the number of homestead applications filed each year from the beginning, and the number which have been left still pending at the end of each year, without even the preliminary action to initiate the applicant's rights:

Fiscal year.	Homestead applications filed.	Number of those filed during year remaining undisposed of at end of year.	Aggregate undisposed of at end of year.
1905.....	227	209	209
1906.....	579	363	507
1907.....	2,669	1,861	2,429
1908.....	2,196	1,751	2,920
1909.....	1,854	1,616	3,266
1910.....	1,427	1,221	3,270
1911.....	2,789	2,294	4,084
1912.....	3,105	2,666	4,430
1913.....	4,468	3,910	6,168
1914.....	5,552	4,703	7,391

The number of applicants shown by these figures will be increased in the near future by the systematic transfers of population referred to above, and also by educational work among the ignorant classes, to be done by an additional force of public-land inspectors just authorized by the Legislature. This increase was suggested by Secretary Worcester some years ago.

The excessive delays revealed by the figures will be avoided, at least in part, by having these additional inspectors supervise the applications filed by ignorant persons, in order to prevent mistakes, and by changes in the routine, so as to eliminate all steps which can be eliminated. Under the existing system, for example, a homestead application has to pass through the following course: From the point of its origin in some outlying province it travels first to the bureau of lands in Manila; if found there to be in proper form it is next sent to the bureau of forestry in Manila; that bureau then sends it back to the province from which it started, for report from the local forestry representative on the question whether the land is better suited for agriculture than for forest; after this it must return to the bureau of forestry in Manila, and again to the bureau of lands, and if it still survives the approval will then be transmitted back to the province. Besides the delays caused by the general lack of communication throughout the islands, each of these journeys has its incidental interruptions and every stop causes loss of momentum. Indefinite delays are the inevitable result. Such matters are very intricate and a remedy that seems obvious may not prove practicable, but the two bureaus concerned are arranging to test a change, by which the application will be referred to the local forest station in the province before it leaves for Manila, and so the double journeys will be eliminated.

Furthermore, whenever applications for homesteads are expected in considerable numbers in any given territory, the bureau of forestry will endeavor to make its examination of that whole territory in advance, so that it may report immediately, without having to make a special examination for every lot.

By this and other changes in routine the department hopes to eliminate all unreasonable delay, and thereby to encourage, as well as quicken, the development of the public lands.

ADMINISTRATION OF THE FRIAR LANDS.

The friar lands, which were purchased by the Philippine government in 1904-5, and aggregate 154,660 hectares (over one-third of them vacant), are the most important lands of the government outside of the public domain.

Their cost was approximately ₱14,000,000, for which amount bonds were issued, the sinking fund and interest requirements to be provided from sales and leases of the land.

The financial management of these estates, to meet these obligations, has always presented a very difficult question, which has not yet been solved.

In the year 1909, when the sales began, the delinquencies were ₱99,000; in 1910 this was reduced to ₱90,000. In 1911, owing to drought, the bureau fell ₱210,000 behind, making a total delin-

quency of ₱300,000. In 1912, again owing to drought, it fell ₱276,000 still further behind, increasing the total delinquency to ₱576,000. In 1913, which was a year of exceptionally good crops, it collected an amount equal to the current obligation, and reduced the accrued delinquencies by ₱36,000 to a total of ₱540,000. In 1914, which has been a year of exceptionally bad crops, it has again fallen behind to the extent of ₱280,000 (about the same amount as 1912), making a total of accumulated deficit for all these years of ₱820,000.

These enormous delinquencies have been due, in part, to repeated failures of crops, resulting from drought, locusts, the rinderpest, and insufficient irrigation; in part to the fact that the prices fixed for the occupied portion of the lands have necessarily been made very high in order to carry the government debt incurred from both the occupied and unoccupied portions; and possibly also partly to some overindulgence to purchasers and tenants.

In 1914, 4,177 suits were filed to collect delinquencies.

Unless there is substantial improvement in the agricultural situation some radical change in the existing plan will be necessary, and it may prove advisable in any event.

The present director of lands has taken up this subject with much vigor, and has several possible solutions under consideration.

Meanwhile the aid of the friar land loan fund has been continued and extended, so that it is now being applied to all the estates, and has also been made available for payment of installments and interest on lots, as well as for the former purposes of cultivation of sugar, purchase of animals, machinery, implements, and the construction of buildings.

As a further relief to the purchasers and tenants, the interest rates on this fund were recently adjusted, so as to stand on the same basis with the rates fixed by the agricultural bank.

This fund has been successfully administered, and now shows an aggregate profit of over 25 per cent.

Act No. 2379 was passed on February 28, 1914, limiting the sale of these friar lands to 16 hectares for an individual, or 1,024 hectares for a corporation.

SAN LAZARO ESTATE.

The San Lazaro estate in the city of Manila is another special property of the government, existing as a trust for the benefit of lepers. It contains lands aggregating 1,027,675 square meters, and valued at ₱3,573,535.

As the presence of this large area of insular government property within the city of Manila is unfortunate for the city, because of the loss of taxation, and is inconvenient to the insular government for administrative reasons, the Legislature passed Act No. 2360 on February 28, 1914, providing for the sale of the area, on installments, with preference to the existing tenants.

Under this law, contracts for the sale of more than half of the property at prices aggregating ₱1,031,759 were executed during the year, and the contracted installments were duly collected. Many of these transactions are likely to be revised, because of an amending law passed in February, 1915, to meet the construction put upon the original act by the legal officers of the government.

The plan as amended seems to be satisfactory to the bureau of lands, the tenants and the public generally, and it should also protect the interests of the lepers, though their rights are practically not affected, because the annual appropriations always made by the Legislature are greatly in excess of the income from the trust.

MANILA RECLAMATION NO. 1.

The Manila reclamation No. 1 (Act No. 1654) has never been developed. The original intention was to transfer the customhouse to this district, and thus make it an important commercial center. The customhouse, however, has not been transferred, and the expected development will not be likely to occur until after that has been done. In the meantime, the prices upon which leases have been offered are prohibitive, having been based upon the hypothesis that the development would be prosecuted immediately. The total annual receipts from the few blocks which have been leased amount to only ₱14,556.59.

The public-works appropriation act passed by the Legislature in February, 1915, authorizes the construction of the proposed new customhouse.

FORESHORE PROPERTY.

The foreshore property (Act No. 1654) still continues to proceed slowly. Prior to this year nine leases were executed, giving a total rental of ₱2,133.50.

During the year one lease was executed, carrying a rental of ₱450, and five more will be ready for execution at an early date, the surveys having been made and notices published. Four other applications are pending investigation.

BUREAU OF SCIENCE.

PERSONNEL.

Dr. Alvin J. Cox, assistant director, who was appointed acting director in May, 1912, following the death of Dr. Paul C. Freer on April 17, 1912, and who has continued to direct the affairs of the bureau since that date, was recommended for the position of director of the bureau of science by my predecessor, and was appointed on January 22, 1914.

The biological laboratory has suffered the loss of Dr. E. L. Walker, its chief, who resigned (notwithstanding an offer of promotion) to accept a position as associate professor of tropical diseases in the Hooper Institute at San Francisco. Dr. D. C. Willets resigned to accept a position as technical assistant in the United States Health Service. The resignation of Mr. Theodore Bolanes was accepted on August 4, 1914, and Mr. L. D. Macmillan was dropped for lack of an appropriation for his position. Dr. Liborio Gomez was transferred to the bureau of constabulary in August, 1913, and Dr. J. D. Jungman, who was appointed an assistant in the laboratory coincidentally with the transfer of Dr. Gomez, was subsequently transferred to the Philippine General Hospital.

Dr. M. A. Barber was promoted to succeed Dr. Walker as chief of the laboratory and Mr. Ariston M. Guzman returned to the laboratory from his leave in the United States.

The remaining vacancies could not be filled immediately, owing to the emergency economy order necessitated by the outbreak of the European war, but as the revenues improved some of them were filled, and the division will be put on a normal and satisfactory basis very soon.

The only changes in the personnel of the botanical section were those caused by the death of C. B. Robinson and the resignation of P. W. Graff. Dr. Robinson was murdered by the natives of Amboina on December 5, 1913, owing to superstitious fear on the part of the natives. Dr. Robinson's loss is a severe one to science as well as to the bureau. Mr. Merrill went to Buitenzorg, Java, and there received the botanical collection made by Dr. Robinson, which was in excellent condition, and brought it to Manila, where it has been arranged for study.

Dr. H. D. Gibbs, chief of the division of organic chemistry, and assistant to the director, resigned on April 15, 1914, to accept a position with the United States Department of Agriculture, Washington, D. C., and Mr. W. C. Reibling, chief of the division of general, inorganic, and physical chemistry, went on leave in April, and resigned September 15, 1914, to accept a position as superintendent, American Tar Products Co., St. Louis, Mo. Mr. Francisco D. Reyes and E. Natividad severed their connection with the bureau on April 16 and October 31, 1914, respectively.

Dr. Harvey C. Brill, Mr. G. W. Heise, and Mr. W. B. O'Brien were appointed to vacant positions in July, 1913, and Mr. Francisco Peña in December, 1913.

The detail of chemists to the university for teaching purposes has been discontinued, except one for a course in cement testing, but Mr. W. B. O'Brien's services were transferred entirely to the university.

The vacancies in the chemical laboratories have not all been filled as yet and the department is carefully considering what additions can be made in view of the necessity for economy.

Dr. H. Otley Beyer, formerly in the ethnological division, was transferred to the university, where he was appointed to the newly created professorship of ethnology.

Mr. Charles Martin, photographer, resigned to enter private business.

Mr. C. S. Banks, of the entomological section, was transferred to the university, and Mr. Willie Schultze, who had been for 10 years entomologist, resigned to accept a position in commercial life.

ORGANIZATION.

The long pending proposal to combine the bureau of science with the College of Agriculture of the University of the Philippines came up again this year, and was referred by his excellency, the Governor General, to a special committee, consisting of Commissioners Palma and Singson.

The department opposed the plan, and the committee decided against it.

SCOPE OF WORK.

No changes have been made in the scope of the bureau's work, excepting the direction of its scientific research so as to give relatively greater emphasis to the industrial and sanitary service of the islands, and relatively less to other studies.

The principal change made in this direction was the elimination of ethnological research, with its attendant photography and publications, but the educational features of this work have been taken up by the University of the Philippines.

These steps were taken because the ethnological research already made, and the publications and photographs connected with it are already sufficient for the necessities of practical administration over the non-Christians and in order to decrease the expense, so that the money might be available for their education, industrial development, and for sanitation in their territory.

In leaving on his vacation the director of the bureau reported that the bureau was on a substantial basis and its administration moving smoothly and satisfactorily, with the hearty support of the department.

PUBLICATIONS.

The department has been compelled, for reasons of economy, to reduce the extent of scientific publications and to make those which are still published less expensive.

The Philippine Journal of Science has been continued and has published a large amount of material touching upon the commercial and scientific interests of the Philippines.

The bureau has also published two important documents directly relating to the practical economic development of the country, "The Mineral Resources of the Philippine Islands" and "The Industrial Resources of the Philippine Islands," and a useful series of post cards and booklets for sale at the Aquarium.

PHOTOGRAPHS.

Rumors which appear to have been current in America that the bureau's collection of photographs has been impaired are entirely without basis.

Not a single photograph, negative, or film has been destroyed or disturbed.

Certain pictures have been withdrawn from general public sale for reasons which would be evident to anyone who inspected them, but even these are still available to applicants who have a legitimate claim.

Photographing in connection with ethnological research has been eliminated with the discontinuance of that research and for the same reasons.

WORK OF THE BUREAU IN AID OF HEALTH AND SANITATION.

Since September the Philippine General Hospital has undertaken its own laboratory work, which has reduced the routine work of

the biological laboratory along certain lines, but these reductions have been more than offset by increased work in other lines, as appears from the following figures:

Nature of examination.	Twelve months ending June 30, 1913.	Six months ending December 31, 1913.	Calendar year 1914.
Feces.....	24,530	24,502	126,022
Sputum.....	5,770	1,919	2,095
Blood.....	23,450	8,780	6,398
Blood culture.....	226	185	392
Widal test.....	388	316	599
Wassermann test.....	727	798	1,288
Leprosy.....	848	243	1,142
Urine.....	6,974	5,309	4,275
Gonococci.....	20,522	8,541	16,383
Waters.....	1,077	1,211	2,118
Necropsies.....	130	142	412
Histological examinations.....	606	322	181
Rabies.....	11	14	35
Plague.....	45	13	64
Rats for plague.....	(1)	27,564	113,337
Miscellaneous.....	57,916	796	1,649
Total.....	153,220	80,655	276,390

¹ Included under miscellaneous.

During the cholera campaign of 1914 it was necessary to call upon the officers and employees of the division to perform an enormously increased amount of overtime work in the laboratory, a demand to which they submitted with great generosity. All possible outside assistance was provided for them, and the bureau had the special good fortune of securing the services of Hospital Sergt. Edward Theurick, United States Army, and Hospital Apprentice (first class) Hugh Lane, United States Navy. The pathologist performed 412 autopsies, mostly as diagnostic measures for the bureau of health, and 609 pathological specimens have been examined for the Philippine General Hospital and private physicians.

The manufacture of serums and vaccine has continued as usual.

Tiqui-tiqui extract, amounting to 58 liters, was prepared under the provisions of Act No. 2376 for the experimental treatment of infantile beriberi.

The work on rabies was continued, and 163 patients were given the Pasteur treatment.

The most important research work on the subject of health has been described above in the paragraph on malaria transmission. Considerable other important work has been accomplished on cholera, tuberculosis, leprosy, plague, and other diseases.

The division of chemistry has under way, in various stages of progress, investigations in field-water survey work and in the curative chemical properties of a number of oils which have been confused with true chaulmoogra oil, and in an attempt to isolate a principle which will cure leprosy.

Officers of the bureau participated in the annual session of the Philippine Islands Medical Association in November, 1914, and read important papers on cholera, malaria, beriberi, leprosy, and the germicidal action of glycerol.

Dr. E. L. Walker was appointed by the Governor General as one of the delegates from the Philippine Islands to the third biennial congress of the Far Eastern Association of Tropical Medicine, held in Saigon in November, 1913.

IN AID OF AGRICULTURE AND FORESTRY.

The botanical section has enlarged the herbarium by the additions of 10,730 Philippine and foreign specimens for the six months ending December 31, 1913, and 18,738 for the calendar year 1914. Approximately 14,186 and 24,622 duplicates, respectively, for the two periods have been distributed by exchange to various scientific institutions and to individuals. Mounted sheets totalling 431 and 678 specimens, respectively, have been loaned to specialists for study.

During the calendar year approximately 9,000 identifications, including unnamed Philippine material incorporated in the herbarium, plants from Borneo and Amboina, and specimens from the College of Agriculture and the Silliman Institute have been made, and over 600 duplicate unmounted specimens have been sent to specialists for identification.

The investigations on the relation of environmental factors to the physical types of vegetation on Mount Maquiling are nearly completed.

The classification of Philippine birds has been carried on as a basis for the suppression of those which are injurious, and the encouragement of those which are beneficial, to agriculture and forestry. A press bulletin was issued in September, entitled "Birds in Their Economic Relation to Man through Agriculture and Forestry."

The teaching function of the entomological section was taken over by the University of the Philippines, but the collection has been maintained and increased by nearly 2,000 numbers, representing several times that number of insects.

The number of chemical analyses of sugar and sugar cane samples has increased.

The sugar central act recently passed by the Legislature provides a means for scientific training of employees in the best chemical processes of handling sugar manufacture, and will add to the importance of the work of the sugar laboratory in Iloilo. This laboratory has been much used by both producers and dealers for umpire polariscopic analyses.

Chemical researches have been made in regard to soils and soil moisture in relation to tropical agriculture.

IN AID OF INDUSTRIES.

In furtherance of the silk industry, which was introduced into the islands as a result of the work of the bureau, it is now raising about 10,000 silk worms every generation. In August the industry was introduced into a new province. The eight years' experience in growing silk worms without their suffering any disease adds to the confidence of the department in the permanent value of this industry to the islands, and the department recommends that a technically

trained officer be provided to supervise it and to encourage its introduction. Chemical researches are being carried on in regard to the following subjects: The efficiency and value of different commercial paints to determine their actual value under local conditions; the chief causes of the diminished durability in a tropical climate of the galvanized iron available on the market, and the problems involved in corrosion and protective coatings in general; a study of the modifications of native smelting processes which can be put into effect by small producers for an improvement in yield, quantity, and economy of production of iron; lime burning; the production of a cheap puzzolan cement from volcanic tuff and lime, which can be substituted for Portland cement in certain classes of construction; gas producer operation; a continuation of the study of the salt industry and resources of the Philippine Islands; a study of clay and shale suitable for use in the manufacture of clay products, such as building and paving bricks, tile, common pottery, etc.; a study of inexpensive modifications of the method of local tanning which can vastly improve local leather in weight, finish, durability, and, particularly, as to odor; the examination of calumpang, the Catanduanes nut, and further work on the lumbang bauncalag, with drying tests of the oil; methods of rectifying vlang-ylang oil; the destructive distillation of Philippine woods with temperature control and a study of their products; a continuation of the effect of storage on various Philippine distilled wines and alcoholic distilled beverages; the extraction of the perfume of the gardenia and the camia flowers; the fermentation and manufacture of cacao from the dried bean; and the nipa palm as a commercial source of sugar.

IN AID OF PUBLIC WORKS.

A reduction in the expenditure made for public works during the year resulted in a reduction of the routine work of the bureau on cement and other material.

The geologists have done considerable work in the examination of drill cuttings from deep wells drilled by the bureau of public works.

MINING AND ASSAY WORK.

The regular assays for private parties and for prospectors in new districts, the cyanidization of ores, consultations with mining prospectors and operators, and examinations of mineral specimens and rocks have required a great deal of time.

The demand by private parties for services of geologists is greater than the division can supply.

The paper on Tayabas petroleum, by Mr. W. E. Pratt and Dr. W. D. Smith, and the printing and distribution of "The mineral resources of the Philippine Islands for 1913" should stimulate development. Also the investigation of the Angat, Bulacan, iron ores and notes on the geology and underground water resources of Panay have been completed.

FISHERIES.

Expert advice has been given regarding methods of fishing, the formulating of pearling and fishing laws, information regarding the

location of fishing banks and pearling beds, and instructions regarding the construction of fish ponds. The economic fisheries industries of the islands, such as the production of window shells and other commercial shells, fish culture, the curing of trepang and other fishery products, the establishment of sardine canneries, etc., have been stimulated in many ways.

Mr. Alvin Seale has worked out a method of conserving the pearl fisheries and of increasing the revenues from them for the department of Mindanao and Sulu.

The mosquito-eating fish brought from Honolulu have multiplied very rapidly, and several thousands have been reared and distributed in the vicinity of Manila, so that the bureau has an ample stock for distribution.

The black bass, *Myxopterus salmoides*, brought originally from the United States in 1907, have increased in a most satisfactory manner, and the two lakes and Trinidad River at Baguio are now well stocked. A shipment of black bass was established in Lake Lanao, Mindanao, on December 22, 1913. The spawning pond for black bass built near the bureau of science is now stocked with between three and four dozen fine bass, which will probably spawn in 1916.

PHILIPPINE MUSEUM.

The splendid collection of Philippine hats, basketry, tools, weapons, agricultural implements, brass work, clothes and cloths, etc., illustrating the life of the people of the islands, was kept open to the public until November, when the best of the exhibit was sent to San Francisco as part of the bureau of science display at the Panama-Pacific International Exposition.

THE POWER AND GAS-PRODUCER PLANTS.

The manifold functions of the central power plant for the Philippine General Hospital, the bureau of science, and the College of Medicine and Surgery, which is under the direction of the bureau of science, have previously been described in the reports of this department. The addition of Dutch-oven furnaces to the boilers has practically eliminated the smoke under normal conditions and has obtained a saving of nearly 3 per cent in the consumption of fuel.

The producer gas generator and the gas engine work satisfactorily. The direct-connected gas-engine engine dynamo unit is about three times as economical for the production of electric power as are the steam-driven generator units. For eight months the producer gas plant has been operated day and night, except when it was stopped for cleaning and repairs.

LIBRARY.

The organization and routine of the library have been continued unchanged.

All new material has been and is being classified and catalogued as received, and progress is being made on the unclassified collection. The better-trained Filipino assistants, who are obtained under the apprentice system, are very useful in classifying and are being encouraged to learn library work.

During the college year 1913-14 instruction for two or three recitation periods per week was given to the five-year students in the College of Medicine and Surgery of the University of the Philippines, to familiarize them with the index medicus. This work has been extended during 1914-15 to include from 8 to 10 recitation periods, and, in addition, elementary work in the use of the library shelf list, dictionary catalogue, and union catalogue, and in the use of reference books, has been given. Twenty-three students, each receiving one lesson per week, are enrolled in this course. The librarian of the bureau of science also cooperates in a course in library training offered by the College of Liberal Arts of the University of the Philippines.

It is necessary to bind 1,000 volumes annually to keep the current scientific literature of the library in shape for government employees, the students of the University of the Philippines and others using the same. Owing to the lack of funds, only 200 volumes have been sent to the bindery during the calendar year, and the binding is getting very much behind.

The period during which the library is open was reduced from 80 hours per week to 62 hours on account of the small library staff, by changing the closing hour from 9 p. m. to 6 p. m. on five days per week and the opening hour from 7.30 a. m. to 8 a. m. on six days. As the use of books has decreased somewhat with the reduction in the library hours, it is hoped that funds will be available to enable the old schedule to be restored.

AQUARIUM.

The aquarium, the building within the irregular pentagon of the bastion of the Puerta Real Gate of the old walled city, was opened in February during the 1914 Philippine Exposition. The exhibition tanks contain a large and complete display of curious and brightly colored fishes, sea anemones, crabs, sea urchins, starfish, etc. In the aquarium at present there are 756 specimens, representing 154 species of fishes, 10 species of crabs, 3 species of suckers, 2 species of turtles, and a number of species of prawns and other shellfish.

Since it was opened there have been 33,621 paid and 28,052 free admissions. The latter consist of those who attended during the opening days, when we had certain free days, and of students and teachers of schools who have been admitted by special arrangement.

BUREAU OF FORESTRY.

PERSONNEL.

In the latter part of the year, Maj. George P. Ahern, who had been the head of the bureau ever since its organization, in 1900, found himself compelled to undergo a serious operation on his eyes (happily successful) and to give up, permanently, residence in the Tropics. His resignation became effective on November 27, 1914.

The enthusiasm which Maj. Ahern brought to his pioneer work of forest conservation in the Philippines, his foresight, his refusal to be discouraged by the many obstacles which lay in his path, and

his many acts of personal thoughtfulness and kindness have won for him a permanent place in the affections of his associates and subordinates, all of whom most heartily wish him unlimited happiness and success in the future.

After the resignation of Maj. Ahern, Mr. W. F. Sherfese, who had been assistant director since July 1, 1912, became acting director, and was appointed director on January 1, 1915.

Four American foresters resigned during the year, and either returned to the United States or accepted more lucrative positions elsewhere. To fill these vacancies, a new appointee arrived from the United States on August 16, 1914, and provisional appointment has already been made of two additional men to arrive during the early part of 1915.

The Filipino ranger force was augmented by the appointment of 29 graduates of the forest school.

THE BUREAU AS A REVENUE-PRODUCING INVESTMENT.

As a means of increasing revenues without taxation, I recommend a substantial increase in the scale of appropriation which has been set for the forestry bureau in past years.

A long course of experience has proved that every increase of investment in this bureau has been simultaneously accompanied by still larger increases in the profits from the forests. Ever since the organization of the bureau, in 1901, it has brought in a profit of substantially 100 per cent every year over and above its expenses, the amount of profit expanding in almost exact ratio with the increase in expenditure.

Until an adequate relationship is finally brought about between the value of the forestry resources and the lumber industry on the one hand and the personnel of the bureau on the other—a condition which is far off—the department believes that heavy increases in appropriation will return a profit of nearly peso for peso to the government in the same year for which they are made.

MEASUREMENT IN THE ROUND.

The profitable returns from the forests will probably be still greater in the future, owing to the passage by the Legislature of a bill, long sought by the department, providing for the measurement of timber, for revenue purposes, in the round, instead of after sawing.

INADEQUACY OF BUREAU FUNDS AND PERSONNEL.

The public forests of the Philippines cover 40,000,000 acres of land (16,000,000 hectares), mostly rough, with poor or few trails, and difficult to traverse. They are scattered from one end of the Archipelago to the other. The stand of merchantable timber is estimated at 200,000,000,000 board feet.

The members of the bureau of forestry must administer, investigate, and protect this property; prevent illegal cutting; put out forest fires; inspect license areas and homestead, lease and sale applications; prevent waste and theft in the thousands of free cuttings made

by the local inhabitants for timber or other forest products for personal use; study and estimate the areas of proposed timber concessions, as well as supervise the concessions already in existence; make forest maps of communal forests and forest reserves, and also conduct the large amount of office work necessitated by the constant use of the forests by the inhabitants of the islands. It is also necessary that they should carry on such research work as has been previously referred to in this report, and, also, train up the future personnel of the bureau through the maintenance of the forest school.

Yet for all these and other duties the permanent force of the bureau on December 31, 1914, consisted of 1 director of forestry, 5 foresters, 1 wood technologist, 1 wood expert, 1 instructor in forestry, 2 assistant foresters, 86 rangers, 2 draftsmen, and 25 clerks. In addition to this permanent force there were employed, on a temporary status, 1 assistant forester, 2 forest nurserymen (1 of whom devotes but one-third of his time to the work of the bureau), 1 ranger, 3 draftsmen, 3 messengers, 2 laborers, 1 carpenter, 2 varnishers, and 19 guards. The inadequacy of such a force for such duties would be self-evident, even if it were not proved by the very excessive amount of overtime work performed both in the Manila office and in the field.

ADMINISTRATION.

All details of the bureau's administrative procedure have been carefully scrutinized and compared, with a view to bringing about all possible simplification.

The additional available personnel, small though it is, resulting from graduation in the forest school, has been of the very highest value.

Two new forest stations were established, a number of new sub-district or forest stations opened, and the field work has been expedited and intensified.

To emphasize the position and authority of the forest rangers, it is very desirable that they should be provided with uniforms, but their salaries are so small that it would not be reasonable to require them to incur the initial expense.

I recommend that the Legislature authorize the bureau to furnish each such employee with two complete suits, thereafter requiring him to provide his own.

COMMERCIAL DEVELOPMENT OF THE FORESTS.

The forests owned by the Philippine government contain an estimated amount of 200,000,000,000 board feet of varieties suitable for every purpose, most of it easily accessible under modern logging conditions.

The total value of forest products now realized annually is only about ₱6,000,000, whereas ₱60,000,000 could be realized without difficulty.

It is estimated that nine times as much timber rots in the forests every year as is cut and utilized under license.

Nevertheless, so little has this great property been developed that, at least until very recently, it has not even supplied the domestic

market, and the imports have greatly exceeded the exports. The figures for the last two fiscal years are as follows:

Fiscal year.	Exports.	Imports.
1913.....	P473, 744	P1, 713, 894
1914.....	753, 254	1, 543, 578

It will be noticed that an increase in exports and a decrease in imports occurred in the last year.

No very great improvement in these conditions can be hoped for until the relations between the United States and the Philippine Islands are more definitely defined than they have ever been hitherto, because the necessary capital will not be invested until political conditions are determined. The uncertainty which has always existed is paralyzing, and any decision, whatever it is, if it is definite, will be better for these enterprises.

Nevertheless, the bureau of forestry has been making progress in the development of the industry, and it already ranks second in economic importance in the Philippines, as it is surpassed by agriculture alone.

Three thousand four hundred and eighty-four commercial licenses of all sorts were granted during 1914, as compared with 2,803 during 1913. Excluding from these figures the firewood, rattan, and minor forest products, the total was 1,483 for the year 1914, as compared with 1,217 for 1913.

This year has marked a decided depression in the industry, due in part to the effect of the European war and in part to certain unfortunate conditions which have been developing in it for a long time. These conditions have resulted in many branches of the industry from careless management rendered possible by the very wide margin between cost and selling price, due to the great excess of demand over supply. To rectify these conditions, the bureau is encouraging the adoption of such rules for grading and inspection as will insure to Philippine lumber the sound commercial reputation which its qualities deserve.

In furtherance of the program to develop the export market, the bureau has established a large exhibit at the Panama Exposition, showing especially the possibilities of those species of Philippine forest products which can be produced in quantities sufficient for large, regular shipment.

The best of the material which the bureau has gathered during the past 10 years has been supplemented by a large and valuable collection secured by loan or purchase especially for the occasion. Extra supplies of lumber have been taken, together with skilled carpenters, polishers, and other woodworkers, in order that a visiting lumber dealer or consumer may see for himself the realized possibilities of Philippine lumber and by actual demonstration under his own supervision settle all doubts as to its suitability for his own purposes.

The active cooperation of all Philippine lumber producers has been invited, and their attention has been called to the fact that the exhibit will not fulfill the purposes for which it has been prepared unless the

lumbermen are ready and able to fill the resulting orders. They have, therefore, been invited, either individually or jointly, to maintain representatives at the bureau exhibit in San Francisco, who should, if possible, be authorized to take orders and to guarantee shipments.

Two popular pamphlets have been prepared for wide distribution at the exposition, entitled, respectively, "The Forest Resources of the Philippines" and "The Export Woods of the Philippines," and there is also a large and complete collection of forest maps, reports, bulletins, etc., so that a visitor interested in any particular detail of the industry may obtain all available information.

The research work of the bureau has been directed to such subjects as promise to afford prompt and substantial returns. The different commercial woods and certain minor forest products are studied to develop methods of gathering and marketing them so as to increase the profits derived by the licensees. The operations of large lumber companies are examined to develop such systems of forest management as will permit in after years at least as profitable a cut as is now being obtained. Methods of reforestation are tried out intensively on a small scale so as to avoid unnecessary risk or loss in larger operations of the same kind.

To the small extent that funds permit forest areas now lying almost or wholly idle are cruised and mapped to induce the development of the timber they contain by the establishment of lumbering enterprises. To allow such areas to remain untouched is a dead loss to the country, both in forest revenue and in failure to utilize the overmature timber before it rots.

COMMUNAL FORESTS AND HOUSEHOLD USES.

New communal forests to the number of 42 were established in 1914, and 40 reports on proposed new reservations were received at the close of the year, which will soon be proclaimed.

The total number of these forests now amounts to 216, distributed in all parts of the islands.

These communal forests are reservations made by civil proclamations for the exclusive use of the inhabitants of the municipalities for which they are established. As the benefits of these reservations are becoming appreciated throughout the provinces the applications are constantly becoming more numerous, and additional personnel will be necessary to deal with them.

The general use of the forests by the public has also increased, 2,350 private gratuitous licenses having been granted during the year, as against 1,248 in 1913. The number of commercial licenses for firewood, rattan, and other minor forest products locally used increased from 1,586 in 1913 to 2,001 in 1914.

CONSERVATION AND CAIÑGINS.

From the conservation point of view the chief difficulty encountered by the bureau has always been the popular custom in the remote parts of the islands of making caiñgins, which are clearings made by burning a patch of forest to be cultivated for one or two

crops and then abandoned, whereupon the land grows up in a rough grass known as cogon. This practice involves a ruthless destruction of valuable forest and also, as pointed out elsewhere, it is largely responsible for the even more immediately disastrous destruction of agricultural wealth by locusts, which depend upon these waste areas of cogon for breeding places.

Various measures are being employed to stop this unfortunate practice.

Legal prosecution has been more effective this year than heretofore, partly due to the aggressive stand taken by the attorney general and partly to the cumulative efforts of the bureau, but even with this improvement only 269 out of 895 cases reported have been acted on during the year (249 were convicted).

Long experience seems to have demonstrated that the custom is too deep-seated to be uprooted by laborious processes of the criminal law, at least until a great deal of educational work has been done and a fuller understanding of the evil and its consequences has become more general.

An active educational campaign on this subject and on the whole matter of conservation will be conducted during the year, in an effort to acquaint the great body of people throughout the islands with the benefits resulting from preservation of the forests and the harm which will occur if they are neglected or destroyed.

A circular in the local languages is being prepared for wide distribution, which will set forth the privileges of each resident of the islands and explain the laws prohibiting forest abuses. In the distribution of these circulars the assistance of the provincial and municipal officials and of the native newspapers, as well as of the bureaus of constabulary and education, will be sought. All the rangers of the bureau will be instructed to hold meetings in the towns which they visit and to talk to the people on these subjects along lines prescribed by the bureau.

Besides this fundamental remedy of education, the most promising other constructive step appears to be the provision of a substitute for cañigins by inducing or requiring the people now cultivating in this way to gather in settlements and take up permanent homesteads. Once started in this new method of living, they seem to prefer it, especially where schools are available, as at the Aborlan school reservation in Palawan.

For this purpose considerable attention has been paid by the bureau, especially during the latter part of the year, in cooperation with the bureau of lands, to inducing the "remontados" of the province of Rizal, the Negritos of Bataan, the Palawanes on the island of Dumarán, in Palawan, and other "monteses" to abandon the practice of making cañigins and settle permanently on suitable tracts of land. Proposed reservations have been examined and lands set aside.

With the continuance of these measures and with systematic educational propaganda on the subject, especially through the influence of the Filipino students and graduates of the forest school (who come from all the provinces), and the spread of the communal forest system, which has a considerable educational value, the cañigin evil is gradually receding.

In the meantime, if funds were made available, existing areas of cogon could be reforested by the broadcast sowing of ipil, a tree of commercial value for firewood and one of the few species capable of competing with the pernicious cogon.

PHENOLOGICAL REPORTS.

In order to furnish more accurate information than has been derived in the past on the periodicity of flowering and fruiting of the various tree species in different parts of the Archipelago, and in order to encourage habits of correct observation on the part of the field personnel of the bureau, a system of so-called phenological reports was established during the month of December, 1914, which it is expected will result in information of decided interest and value.

PUBLIC LANDS.

The year just closed shows a heavy increase in the number of homestead applications. Five thousand eight hundred and ninety parcels of public land were examined by forest officers to ascertain their relative forest or agricultural value, as compared with 3,131 during 1913. Instructions recently issued by the department promise to eliminate much of the delay which was previously necessary in making these examinations.

TRAINING OF FILIPINO RANGERS AND FORESTERS AT THE FORESTRY SCHOOL.

The forestry school, which was established by the Philippine Legislature in 1910, continues to yield most gratifying results in training Filipino rangers and foresters for the work of the bureau.

In 1914, 29 students were graduated as rangers, making a total to date of 73. All of these have entered the bureau of forestry, at initial salaries ranging from ₱50 to ₱60 per month, with the exception of a private student from China, who returned to his country.

There are still a few of these private students in the school, five from China, maintained by the China famine relief forestry fund, and two from Guam, maintained by the United States Navy.

The rest of the student body is made up of government pensionados, who are students supported by government scholarships, under contract to enter the bureau of forestry on the completion of their studies and to serve a period at least equal to that of their scholarships.

Higher courses are offered leading to the degree of bachelor of science in forestry, and two graduate rangers are expected to take this degree during the coming year, while a number of others are planning to begin their work for it.

The various acts under which the forest school has been operating have authorized the expenditure of relatively small sums for necessary school equipment and for the maintenance of grounds and buildings. The last session of the Legislature appropriated ₱10,000, which will permit the erection of a building to provide the most

immediately necessary lecture room and laboratory space. Funds are urgently needed to permit the construction of living quarters for the students, as the houses which hitherto have served for this purpose were constructed solely of light materials and have now reached the point when their further maintenance is uneconomical and altogether unsatisfactory. The erection of temporary buildings in the first place was reasonable, inasmuch as the school started out somewhat as an experiment. The experiment has proved a gratifying success, and the erection of permanent buildings is now not only warranted but would be a measure of real economy.

COOPERATION.

The bureau has performed various duties in cooperation with other organizations of the government, including the bureau of lands in the settlement of monteses, the various locust boards in the suppression of locust swarms, the welfare committee in the observation of clean-up week, the province of Bataan in trail building, and the bureau of education and the bureau of science in various projects.

A plan is under consideration to utilize the field force of the bureau in the administration of the game laws.

THE WEATHER BUREAU.

This bureau has continued its usual vigilant work on behalf of agriculture and commerce.

Father Algué recently sustained a severe accident, from which, however, he is fortunately recovering. It was caused by the overturning of his calesa on a bad portion of the road while he was on his way to make an inspection of the station at Taal.

PUBLICATIONS IN AID OF AGRICULTURE AND COMMERCE.

Owing to the strict economy that had to be practiced, the bureau has been unable to expand and extend its work, but, nevertheless, much was done in the study of the climatological conditions of the islands in so far as these conditions affect the agricultural prosperity of the country. For this object, an elaborate monograph was published on the annual amount and distribution of the rainfall in the Archipelago; and in order to call general attention to the climate of the islands, a pamphlet was prepared on the subject for the Philippine board of the Panama-Pacific International Exposition for distribution during the exposition at San Francisco.

TYPHOONS.

The year 1914 was one of comparative freedom from destructive storms, only two doing any serious harm. There were, however, many typhoons which influenced the islands slightly and which later on did great damage in the neighboring countries, so that during the year 127 typhoon warnings were sent to the foreign observatories of the Far East.

SEISMIC DEPARTMENT.

The year 1914 was one of relatively small seismic activity, only 153 disturbances being registered as against 396 in 1913. The greatest of these earthquakes was the one which occurred on March 17, 1914, in Samar and which had its epicenter in the "Great Deep" of the Pacific. This hollow or valley in the bottom of the ocean is about 60 kilometers from the northeast coast of Mindanao in the Pacific. It was discovered by the German survey ship the *Planet* in 1912, when a depth of 9,780 meters was found. For the purpose of studying more closely the relation between the frequent seismic movements in the Visayas and Mindanao and the "Great Deep" a 180-kilogram Weichert seismograph was acquired during the year and will shortly be installed in Butuan.

A new seismic station was founded on the Island of Guam, which, on account of its proximity to the famous Challenger Deep, is very interesting from a seismological standpoint. We were greatly helped in the installation of this new station by the United States naval authorities and especially the governor of the island, Capt. Maxwell, United States Navy, who did all that was possible to facilitate the work, and who offered to house the instrument and provide the personnel necessary for its maintenance. The instrument installed in Guam is a Weichert seismograph with a pendulum of 180 kilograms.

A series of experiments was made in the workshop of the observatory with the object of evolving a new form of seismograph which could be installed on the ground floor of houses of even light construction, would record all local shocks, yet at the same time would be simple enough to be maintained by an ordinary third-class observatory. The experiments were successful, and a modified form of the Omori type was obtained, which is giving good results.

MAGNETISM.

There was renewed activity in the magnetic department during the latter part of the year, because in July there arrived from the department of magnetism of the Carnegie Institute, Washington, D. C., the corrections and calculated instrumental errors of the magnetic instruments installed in Antipolo, and consequently the measurement of the photographic curves of the past three years was begun.

Special magnetic observations were made during the total eclipse of the sun in August, 1914, in conjunction with the International Committee on Magnetism.

ASTRONOMY.

The time service of the Philippines was greatly improved during the year. For this work a new transit instrument of the latest type was acquired, and it has given excellent results. Much care was given to the determination of the various constants of the instrument. During the year 900 star transits were observed.

The time ball was connected up with the chronograph in order to check the time of fall. The greatest errors during the year were:

	Second.		Second.
Feb. 11-----	0.54	Aug. 17-----	0.33
July 7-----	.37	Sept. 15-----	.33
July 13, 18-----	.30		

In February, 1914, a series of drawings of the planet Mars were made with the help of the big telescope at the request of Prof. Pickering, of Harvard.

Seven hundred and thirty observations of solar radiation were made by means of the Angstrom compensating pyrheliometer, and daily records were obtained from the new Callendar sunshine recorder.

Thirty-three ship's chronometers were corrected and rated during the year.

There was but little change in the secondary stations of the bureau during the past year. One station was closed, viz., the one in Silang, Cavite, and arrangements were made for the opening of a new one at Glan, southern Mindanao. The present stations of the weather bureau are: The central station, Manila; 1 branch observatory, Baguio; 1 magnetic observatory, Antipolo; 1 seismic and geophysic station at Ambulong, Taal; 7 first-class stations; 10 second-class stations; 25 third-class stations; and 10 rain stations.

Ninety-one per cent of the weather bureau is Filipino. There were 8 separations from the service during the year—1 death, 2 dismissals, and 5 resignations.

The salary of 20 of the Filipino employees of the bureau was raised at the beginning of the year. Some of those who obtained this promotion had been in the service for more than 30 years.

Valuable improvements costing \$4,236 were made by the Manila observatory and paid for from the private funds of the staff. These improvements were the Repsold transit, the Callendar sunshine recorder, and new magnets for the magnetometers.

The motor launch of the seismological station of Ambulong, Taal, was damaged during the floods and typhoons of September last, and was repaired by an employee of the bureau of customs.

RECOMMENDATIONS.

It is recommended that stations of the weather bureau be established in all the provincial capitals in order to facilitate the spread of typhoon warnings and other weather information.

METHOD OF OBTAINING MORE DETAILED INFORMATION.

The annual reports of the Delegate and of the directors of bureaus and their subordinates are on file and open to inspection. Such of them as are printed may be had upon application. The department will furnish any information within its field that may be applied for, either from these reports or otherwise, as desired.

Respectfully submitted.

WINFRED T. DENISON,
Secretary of the Interior.

To the PHILIPPINE COMMISSION,
Manila, P. I.

REPORT OF THE SECRETARY OF COMMERCE AND POLICE.

JULY 1, 1913, TO DECEMBER 31, 1913.

DEPARTMENT OF COMMERCE AND POLICE,
Manila, March 26, 1915.

GENTLEMEN: I am submitting herewith report of the work of the department of commerce and police for the period beginning July 1, 1913, and ending December 31, 1913.

The Hon. Frank A. Branagan was acting secretary of commerce and police from July 1 until November 30, the date of his resignation from the insular government, and the undersigned was appointed acting secretary of the department by Executive Order No. 102, dated December 1, 1913, and continued to serve for the remainder of the time covered by this report. The Hon. Clinton L. Riggs was appointed secretary of this department on the 29th day of November, 1913, but did not take over the duties of the office in the period covered by this report.

On December 13, 1913, the bureau of navigation was abolished by Act No. 2308, and the duties were divided between the bureau of public works and the bureau of customs.

The board of rate regulation created by Act No. 1779, which had supervision over the rates of every public-service corporation and was empowered to fix, revise, and regulate rates, was abolished in December, 1913, by Act No. 2307, and its powers and duties transferred to the board of public utility commissioners.

BUREAU OF CONSTABULARY.

Chief of constabulary: Brig. Gen. H. H. BANDHOLTZ, July 1, 1913, to July 6, 1913.

Acting Chief of constabulary: Col. JAMES G. HARBORD, July 7, 1913, to December 14, 1913; Col. WM. C. RIVERS, December 15, 1913, to December 31, 1913.

Officers and employees of the bureau at the close of the year.

	Americans, 1913.	Filipinos, 1913.	Total, 1913.	Total, 1912.
Directors.....				1
Assistant directors.....	9	1	10	9
Assistant to director.....	1		1	1
Inspector for Philippine Commission.....	1		1	2
Officers.....	278	57	335	314
Clerks.....	16	46	62	60
Messengers.....		7	7	7
Stenographers.....	5	2	7	6
Translators.....	1	1	2	2
Agents.....	3	16	19	18
Miscellaneous.....	4	16	20	19

Changes in personnel, excluding officers and enlisted men.

	Americans, 1913.	Filipinos, 1913.	Total, 1913.	Total, 1912.
Appointments:				
Classified service	2	12	14	5
Unclassified service	4	10	14	27
Reinstatements				2
Removals:				
Classified service				
Unclassified service	1	1	2	1
Resignations, voluntary:				
Classified service	3	5	8	13
Unclassified service	2	4	6	18
Resignations, due to economy:				
Classified service	1		1	
Unclassified service	1		1	
Transfers to bureau	2	2	4	9
Transfers from bureau		2	2	5
Deaths				

Statement of number of American and Filipino officers and employees at the time of rendering reports submitted to show relative numbers of Americans and Filipinos employed, excluding enlisted men.

Dates.	Americans.	Filipinos.	Total.	Salary expenditures.
June 30, 1905	269	259	528	
June 30, 1906	306	221	527	
June 30, 1907	286	107	393	
June 30, 1908	285	125	410	
June 30, 1909	286	105	391	
June 30, 1910	284	113	397	P1,135,715.83
June 30, 1911	295	93	388	1,142,610.05
June 30, 1912	298	104	402	1,163,327.86
June 30, 1913	291	121	412	1,187,160.38
Dec. 31, 1913	319	146	465	680,118.76

¹ The constabulary records are not available showing the expenditures for previous years.

On December 31, 1913, the actual strength of the constabulary, including the medical division and the band, was 321 officers and 4,682 enlisted men distributed throughout the Archipelago in 136 stations.

Strength of enlisted force, December 31, 1913.

	Officers.	Enlisted men.
Headquarters	10	25
Medical division	2	
District of Northern Luzon	46	758
Medical division	3	14
District of Central Luzon	64	1,082
Medical division	2	24
District of Visayas	45	823
Medical division	2	17
District of Southern Luzon	36	640
Medical division	3	16
District of Mindanao	57	1,010
Medical division	4	25
Santa Lucia Barracks	5	
Medical division		5
General service, Philippine constabulary	5	137
Constabulary band	1	79
Constabulary school	6	12
Palawan	2	5
Absent with leave	26	
On detached service from the bureau	1	
Total	321	4,682

For the purpose of discipline, instruction, and inspection the islands are divided into five constabulary districts, each in charge of an assistant chief. The number of companies of constabulary now is 107, an increase of 11 companies in the past 12 months. The smaller provinces have one company each and the larger provinces as many as four companies. Act No. 2268 of the Philippine Commission, dated February 17, 1913, authorized six additional companies and Act No. 2289, dated November 4, 1913, five additional companies. All the additional companies are stationed in the islands of Mindanao and Palawan and the Sulu group. The constabulary system depends for the maintenance of order in a given province on men enlisted in the province, the advantage of knowledge of local conditions, territory, and dialect having been found after years of trial to outweigh the disadvantages. The Moros in the south and hill people in the north render excellent service in keeping the peace among their own people, and the time has arrived when enlistments can be made among the Ilongot and Isneg people to more effectively police the untraveled mountain regions in the north inhabited by these tribes. Some of both of these tribes desire to become soldiers and we have officers who know enough of their dialects and possess the confidence of their chiefs so that this can be taken up when funds become available.

The condition of the constabulary with reference to training and discipline is very good. The number of offenses against discipline among officers has been small, and the criminal or disciplinary offenses among the men infrequent. All newly appointed officers are sent to the constabulary school at Baguio for preliminary instruction for three months. The Legislature has authorized the appointment of a number of provisional officers or cadets, at a nominal salary, for a six-months' course of instruction at Baguio, the selected ones forming an eligible list for appointment as third lieutenants. Request has been sent to the War Department that efforts be made to have all the newly appointed officers who come out this year selected from military colleges having Army officers detailed as instructors.

PENSION FUND.

This fund now amounts to ₱240,402.50, which has been contributed by the officers and men. The question of providing an adequate pension for officers and enlisted men of the constabulary has been considered by the Legislature, but no definite action has been taken up to this time.

PEACE CONDITIONS BY DISTRICTS.

District of northern Luzon.—Col. W. C. Rivers was in charge of this district until December 23 last, when he was relieved by Col. John R. White. There was no organized brigandage in the district, although the usual number of crimes of violence and other offenses against individuals or property occurred. The constabulary in this, as well as in other districts, was constantly employed in the effort to prevent crime by means of systematic small patrols throughout the country districts. A good deal of animal stealing took place in

La Union. In Candon, Ilocos Sur, there was some unimportant trouble between the president and other town officials.

A stevedore strike in Aparri in November seemed to threaten violence at one time, but through the efforts of the municipal officials and the constabulary the trouble was averted.

Peace conditions have been good in the mountain region among the hill tribe, although vengeance or personal feuds resulted in several murders and the constabulary was called on to keep the peace between different villages. Conditions continued to improve in Apayao Province and great improvement is predicted there when the station of Taut is moved farther into the interior where the various Isneg chiefs can visit the station and keep in touch with the provincial governor without passing the rancherias of enemies among their own people. Funds for this purpose are available now.

District of central Luzon.—Col. W. C. Taylor was in charge of this district. No organized outlaw bands were reported and the number of thefts, robberies, and murders was about as usual. The capture of a well-known outlaw, Severino Perez, on November 23, 1913, will no doubt improve conditions in the swamps on the Bulacan-Bataan border. In Zambales, on August 11, some members of a secret organization called "Esperanza de la Patria" took two shotguns from private citizens and took to the mountains. They lost their way in the hills, ran short of provisions, and a number surrendered with the two shotguns to the police and volunteers who had turned out from the citizens at San Marcelino. The constabulary, under Lieut. Col. Griffith and Capt. Nicholson, later arrested the leaders, Basilio de Guzman and Blas Sison, and they, with about 65 followers were tried by the courts and sentenced to imprisonment to terms varying from six months to one year. Two priests of the Filipino Independent Church have since been arrested for complicity with this movement and are now awaiting trial.

District of southern Luzon.—Lieut. Col. C. C. Smith was in charge of this district. There was no disturbance of public order of any importance in this district. A small band of Negrito outlaws was broken up by the constabulary in December by the killing and capture of the leaders. A few of the remnants of the old Otoy band of Pulajanes are reported to be living in the remote regions of Samar and to have one of two firearms. The leader has since been captured by the constabulary and the senior inspector is endeavoring to settle these people in one of the rancherias of the interior where they can form a barrio and go to farming.

District of the Visayas.—This district was under the charge of Col. T. I. Mair. No organized bands were reported. An outlaw called Oto Dorable and his five sons, who have led a roaming life in the mountains along the Antique border, are still at large. Oto and his people are said to have several firearms but have committed no depredations. Some of the mountain people in the interior of Negros committed an assault on some of their own people, killing about 7, and 20 of the assailants have since been arrested by the constabulary. There are a number of ignorant people who live in the mountains between Iloilo and Capiz under the general leadership of two brothers named Batalones, who are reported by the low-

land people occasionally as intending to make a foray. These people are engaged in farming and it is difficult to get in touch with them in the rough country they inhabit. A constabulary station is kept at Tapaz on the Capiz side and at Calinog on the Iloilo side, in an effort to get in touch with these people.

District of Mindanao.—This district was in charge of Col. Hershey. The departure of Brig. Gen. J. J. Pershing, United States Army, in December, who had been governor of the Moro Province for four years, and the appointment of the Hon. Frank W. Carpenter as his successor, followed the removal of the American troops from Mindanao. The garrisons there now are composed of Philippine Scouts and Philippine Constabulary. This places heavier responsibility on the constabulary and adds much to the work in that region. Four companies of constabulary have been temporarily loaned for duty in Mindanao until the newly formed companies there are trained.

Peace conditions in Lanao, Cotabato, and Davao are very good. On the island of Jolo there is a band of outlaws; a number have rifles and have committed some depredations on their own people. Patrols are maintained, with the idea of protecting the law-abiding and capturing or destroying the outlaws.

MUNICIPAL POLICE.

The municipal police are administered under Act No. 2169. The law empowers the chief of constabulary to make rules for the instruction and discipline of the police and to prescribe the armament, and the senior inspectors and other constabulary officials in the provinces inspect and report upon the condition of the police monthly. A new manual of the municipal police was issued in September, and will be of assistance in uniformly providing rules and regulations for all towns in the Archipelago. Formerly the municipal councils had power to change and did change the personnel of the police after each election. The new law corrects this defect and provides that the chiefs and members of the municipal police force of each town are appointed only after examination and have the protection of the civil-service law and are removed only for cause. This not only prevents wholesale changes in the whole of the force at one time, but insures a better class of men for the work. The principal difficulty (and a real one in a number of places) found so far is that some of the towns have not the revenues from which to pay a living wage to the policemen, and estimates have been submitted in the effort to get the insular government to assist some of the poorer towns in paying the salaries of the police. One of the most important things the constabulary can now do is assisting the provincial governors and municipal presidents to continue to improve the municipal police. As the municipal police improve, the constabulary work in the towns and well-settled portions of the provinces will be less and the constabulary will be left more free to look out for the distant sections and to keep in touch with the hill people.

During the past six months peace conditions throughout the islands have been excellent and the number of crimes committed by individuals has been normal.

BUREAU OF PUBLIC WORKS.

WARWICK GREENE, DIRECTOR OF PUBLIC WORKS.

The larger results of the year's work.

	July 1 to Dec. 31, 1912.	July 1 to Dec. 31, 1913.	In exist- ence Dec. 31, 1913.
Heavily surfaced road constructed and designated first class.....kilos..	71.1	136.5	¹ 2,233.8
Reinforced concrete bridges and culverts constructed.....number..	232	186	¹ 3,046
Successful artesian wells completed.....do....	78	84	¹ 902
Reinforced concrete buildings completed.....do....	67	51	(*)

¹ Including the Benguet Road and city of Baguio.² Including Agusan, Mountain Province, Palawan, Tagudin, Nueva Vizcaya, and the city of Manila.³ Earlier records incomplete.

Compared with one-half of the expenditure for the previous fiscal year of 12 months this is an increase (+) or decrease (—) as follows:

	Amount.	Per cent increase (+) or decrease (—)
Total of expenditure supervised.....	P5,407,466.45	+ 5
Total expended upon road and bridge work.....	2,840,453.83	+ 6
Expended upon road maintenance work.....	839,981.26	+ 6
Expended upon building work.....	1,406,881.80	+51
Expended upon irrigation work, including river control.....	191,359.76	—45
Expended upon water supply.....	259,195.17	— 8

All of the funds expended by the bureau are derived from the current revenue of the islands.

PERSONNEL.

The reduction in number of bureau personnel continued, mainly as a result of employees separating of their own volition. No separations were made on the initiative of the bureau except after thorough consideration of the merits of the case and available funds.

The statistics as to engineers follow:

Number of individual engineers employed during the year.

	Total.	Filipino.
1911.....	153	10
1912.....	141	13
1913.....	126	18
1914 (6 months).....	101	21

Average salary and length of service of individual engineers.

	Average salary.	Average length of service.
1911.....	P3,983.51	2 years 15 days.
1912.....	4,146.20	2 years 9 months.
1913.....	4,194.36	3 years 2 months 20 days.
1914 (6 months).....	4,221.65	3 years 7 months 11 days.

LEGISLATION.

The only new legislation of importance affecting the bureau of public works, and passed before the end of the year, was Act No. 2308, enacted December 19, 1913. It provided for the assumption of the duties heretofore performed by the bureau of navigation in connection with the construction of lighthouses and accessory buildings, of docks and other port works, of facilities for loading and unloading vessels, together with the dredging work, etc.

Financial condition of the bureau of public works.

	Cash account balance.	Total worth.	Amount bureau appropriation devoted to bureau.
June 30, 1910.....	₱358,931.54	₱959,148.60	(1)
June 30, 1911.....	498,259.41	1,356,677.20	₱184,834.70
June 30, 1912.....	141,942.06	1,574,509.28	156,000.00
June 30, 1913.....	89,365.27	1,520,396.06	137,965.00
Dec. 31, 1913.....	110,733.20	1,139,232.00	136,000.00

¹ Not comparable.

The abrupt falling off in total worth at the end of 1913 is due to charging off ₱611,775.72 for depreciation of equipment, being the first charge for the purpose ever made in the bureau accounts. If the figures were on the same basis as in previous years, the total worth would be ₱1,861,740.92.

CASH ACCOUNT.

The cash account on June 30, 1912, showed that the insular treasury in financing the bureau of public works, had advanced over ₱900,000; the accounts receivable exceeded ₱1,100,000, and accounts payable reached almost ₱800,000. The bureau was doing a business in supervising engineering work of about ₱10,000,000 per year. The amount advanced by the treasury, and the two bill items, were entirely too large. Efforts to better this situation had made progress, but the pressure of other work in the accounting division had prevented it being no more than partial. A new campaign was at once begun and consistently and continuously carried on for the more prompt payment of the bureau's own debts and for the application of an insistent pressure upon the bureau debtors. Results once obtained in the items of bills receivable and bills payable, the draft on the treasury would automatically reduce itself. The following tabulation shows satisfactory results from this policy:

Accounts receivable.

	June 30, 1912.	June 30, 1913.	Dec. 31, 1913.	Decrease, 18 months.
				Per cent.
Provinces.....	₱496,439.64	₱288,099.31	₱167,065.41	66
Bureaus.....	472,480.31	313,761.75	118,946.27	75
Persons and firms.....	112,134.84	96,234.51	54,120.79	52
Municipalities.....	55,661.22	26,681.09	6,271.65	89
Total.....	1,136,716.01	726,776.66	346,404.12	70

Accounts payable.

June 30, 1912.....	₱799,073.06
June 30, 1913.....	276,508.23
Dec. 31, 1913.....	252,939.42

Expenditures supervised by the bureau of public works, July 1, 1913, to Dec. 31, 1913.

Road and bridge work.....	₱2,840,453.83
Building work.....	1,406,881.80
Irrigation and river control.....	191,359.76
Water supply.....	259,195.17
Miscellaneous work.....	326,976.17
General office.....	382,599.72
Total.....	5,407,466.45

NOTE.—One-half of the total expenditure supervised during the fiscal year 1913 (July 1, 1912, to June 30, 1913) was ₱5,142,796.

Profit and loss account (fiscal year 1914) six months ending Dec. 31, 1913.

	Dr.		Cr.
Transfer to building maintenance, alteration, and repair.....	₱159,000.00	Appropriation Act No. 1989.....	₱286,000.00
Transfer for prior year's expense.....	29,039.08	Transfer.....	9,000.00
Maintenance of improvements.....	2,237.63	Transfer to prior year's expense.....	29,039.08
Bureau administration and miscellaneous expense.....	420,560.01	Receipts from operation.....	103,582.50
Maintenance of equipment.....	43,404.25	Equipment rentals.....	25,407.92
Equipment rentals canceled.....	40,001.02	Surcharges.....	313,089.16
Gain from operation.....	72,811.72	Refund of prior year's expense.....	935.05
Total.....	767,053.71	Total.....	767,053.71

NOTE.—The sum of ₱45,944.26 was charged out under heading administration to account of deterioration of supplies in stock.

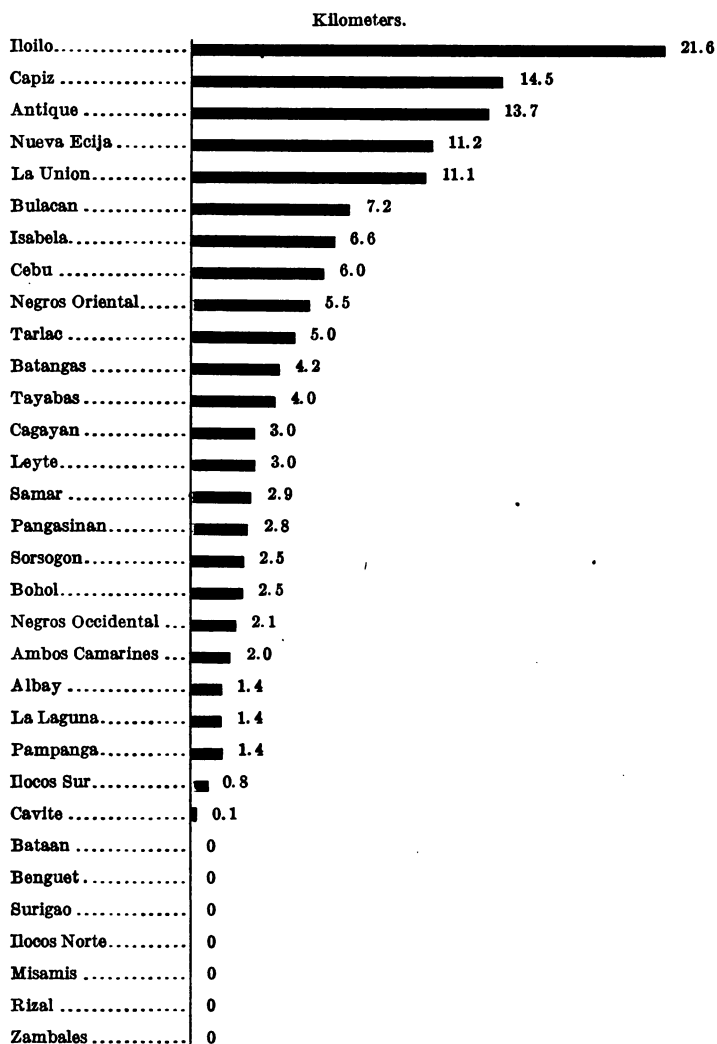
LIABILITIES.

Capital Dec. 31, 1913:	
Cash from insular treasury.....	₱668,675.47
Permanent improvements.....	97,582.54
Equipment on hand.....	1,041,649.46
	1,807,907.47
Accounts payable.....	252,939.42
Returned to insular treasury, including ₱72,811.72 gain in operation, counting both the net bureau appropriation and bureau earnings, as per profit and loss account above..	110,733.20
Total.....	2,171,580.09

ASSETS.

Bureau of public works plant:	
Permanent improvements, real estate, and equipment on hand July 1, 1913.....	₱1,431,030.79
Net expenditure from capital upon improvement and equipment, being the value of items purchased less return from items sold.....	53,648.47
Net assets brought into account, being public property acquired from projects, etc., less other property transferred, valueless property dropped or condemned, etc.....	266,328.46
Subtotal.....	1,751,007.72
Less depreciation charged off.....	611,775.72
	1,139,232.00
Supplies on hand at end of half year.....	632,183.11
Accounts receivable—making no allowance for bad debts.....	346,404.12
Cash in hands of disbursing officers..	53,760.86
Total.....	2,171,580.09

FIRST-CLASS ROAD CONSTRUCTED AND DESIGNATED.

Fiscal year ending December 31, 1913 (6 months).

FIRST-CLASS ROAD CONSTRUCTED.

<i>Fiscal year.</i>	<i>Kilometers.</i>
1910.....	249.0
1911.....	357.4
1912.....	291.4
1913.....	257.6
1914.....[6 months]..	136.5

NOTE.—Benguet includes the city of Baguio.

Roads in existence—all classes—Dec. 31, 1913.

Provinces.	First class.	Second class.	Third class.	Total.
	<i>Kilometers.</i>	<i>Kilometers.</i>	<i>Kilometers.</i>	<i>Kilometers.</i>
Cebu.....	152.5	302.1	143.5	598.1
Pangasinan.....	141.6	126.4	254.2	522.2
Negros Occidental.....	104.4	39.4	321.2	465.0
Nueva Ecija.....	48.4	3.5	339.6	391.5
Batangas.....	70.2	123.0	171.5	370.7
Iloilo.....	145.3	70.9	121.0	337.2
Leyte.....	99.0	.....	215.7	314.7
Pampanga.....	41.6	98.2	156.7	296.5
Bulacan.....	59.9	104.2	113.3	277.4
Albay.....	133.4	45.4	89.2	268.0
Agayay.....	16.0	47.7	178.6	242.3
Bohol.....	46.3	118.5	51.0	215.8
Tayabas.....	115.0	71.0	24.3	210.3
Antique.....	46.7	89.7	68.1	204.5
La Laguna.....	101.6	50.7	49.6	201.9
Cavite.....	52.6	45.4	96.1	194.1
Capiz.....	106.6	38.3	48.6	193.5
Ambos Camarines.....	113.5	25.9	52.6	192.0
Ilocos Sur.....	102.2	82.3	5	185.0
Rizal.....	97.9	42.3	35.9	176.1
Ilocos Norte.....	54.8	116.4	2.5	173.7
Misamis.....	21.7	71.3	78.3	171.3
Isabela.....	32.7	22.2	116.1	171.0
Tarlac.....	33.4	11.2	116.9	161.5
Negros Oriental.....	33.5	115.0	13.0	161.5
Samar.....	47.5	.....	95.7	143.2
Sorsogon.....	70.1	2	63.9	134.2
Zambales.....	.....	71.7	55.9	127.6
La Union.....	52.4	54.7	8.5	115.6
Benguet ¹	61.9	.....	8.2	70.1
Bataan.....	16.0	20.5	20.5	57.0
Surigao.....	9.1	16.5	28.0	53.6

¹ Benguet includes city of Baguio.*Roads in existence at end of each fiscal year.*

Years.	First and second classes.	Third class.	Total.
	<i>Kilometers.</i>	<i>Kilometers.</i>	<i>Kilometers.</i>
1911.....	2,656.6	2,956.7	5,613.3
1912.....	3,999.6	3,216.7	7,216.3
1913.....	4,131.6	3,118.1	7,249.7
1914 ¹	4,258.4	3,138.7	7,397.1

¹ Six months only.

COST OF ROAD MAINTENANCE.

AVERAGES PER KILOMETER FOR ISOLATED CAMINERO SYSTEM.

Fiscal year ending December 31, 1913 (6 months).

Rizal	P 432.20
Zambales	P 368.05
Bohol	P 339.53
Albay	P 324.86
Tarlac	P 323.94
Pangasinan	P 323.92
Iloilo	P 322.94
Cavite	P 317.56
Leyte	P 313.72
Misamis	P 305.98
Samar	P 288.83
Laguna	P 288.28
Sorsogon	P 276.10
La Union	P 266.39
Surigao	P 265.74
Nueva Ecija	P 264.72
Ilocos Norte	P 255.73
Cagayan	P 254.86
ALL PROVINCES	P 251.39
Bataan	P 246.65
Pampanga	P 243.42
Batangas	P 232.98
Negros Occidental	P 214.76
Bulacan	P 189.26
Ilocos Sur	P 181.30
Isabela	P 178.45
Capiz	P 174.59
Ambos Camarines	P 166.26
Tayabas	P 150.05
Antique	P 148.66
Cebu	P 148.20
Negros Oriental	P 111.96

GANG SYSTEM.

Average cost per kilometer for the year excluding Banguet Road P 100.45.

	TOTALS.		
	1912	1913	1914 [6 mos. only.]
Isolated Caminero system	P 826,972.11	P 1,096,854.29	P 539,560.88
Gang system	588,178.42	482,250.53	300,421.38
Total	1,415,150.53	1,579,104.82	839,981.26

Gang maintenance totals include the cost of maintaining the Banguet Road.

ROAD WORK.

	Kilometers in existence Dec. 31, 1913.	Increase during 6 months, July 1-Dec. 31, 1913.	Compared with increase for one-half fiscal year 1913, this is an increase of—
			<i>Per cent.</i>
First-class road	2,233.8	136.5	6
First and second class road	4,258.4	126.8	92
First, second, and third class road, excluding trails	7,397.1	147.4	783

The increase in first-class road represents both the new construction and the official first-class designation for maintenance purposes, there being no new work in the Mountain Province. The sum of the first and second class roads, as above, represents the length of road continuously open to productive vehicle traffic, and is the road statistic which requires least qualification.

The amount of funds expended upon first-class road construction was 35 per cent of the road and bridge funds—practically the same as heretofore. The total first-class construction passing inspection for designation, as noted above, was 136.5 kilometers. The expenditure upon this class of construction was reported by the district engineers to be ₱1,027,622.61. On this basis, the new heavily surfaced (or first-class) road cost somewhat over ₱7,500 per kilometer. The surfaced road and its classification by kinds of surfacing is shown below:

	Kilometers.
Stone surfacing	800.1
Gravel surfacing	1,774.6
Coral surfacing	756.5

The scientific study of road construction, which the bureau depends upon to keep its road work abreast of modern developments in highway specification and practice, continued through the year. No especial change was evident in the amount of traffic upon the roads.

The isolated caminero system at the beginning of the year was maintaining 2,111.4 kilometers of road. This length increased steadily until the average length maintained for the six months became 2,146.3 kilometers. The cost of the caminero system was ₱251.39 per kilometer, which is equivalent to a yearly rate of ₱502.78, as compared with ₱555 per kilometer for the fiscal year of 1913. Gang maintenance covered nearly all the remaining length of the road continuously passable for productive traffic. The cost of the gang maintenance was ₱100.45 per kilometer for the six months, compared with ₱127.53 for similar work during the 12 months of 1913. The heavy gang maintenance work is done just after the rainy season, which is the cause of the apparently high cost. Maintenance work required funds to the extent of ₱840,000, or 30 per cent of all money expended upon road and bridge work. The accompanying chart shows the detail of the work, the character of which is completely outlined in the reports for the last two years.

TRUNK ROADS IN LUZON.

Work was vigorously pushed on the two trunk roads running from Manila to the two ends of the island of Luzon. Until the final location is made at all points the total lengths are somewhat variable, but the Manila-North Road will be not far from 600 kilometers in length and the Manila-South Road about 550 kilometers. The length of the first-class portion of the northern road has increased 37 per cent in the last 18 months, while the increase in the first-class part of the southern trunk road was 19 per cent in the same period.

BRIDGES AND CULVERTS.

The cost of designing bridges and culverts was reduced one-seventh during the 6 months, the figure for the 12 months ending June 30, 1913, having been 2.2 per cent of the engineer's estimate of cost, falling to 1.9 per cent for the 6 months ending December 31, 1913.

It is to be noted that the superstructures of the reinforced concrete girder bridges have been standardized for a live load of one 12½-ton road roller. This class of design work is therefore now limited to preparing substructure plans and adapting the standard superstructures to the specific location.

Contracts were awarded for the construction of 17 bridges, with an aggregate contract price of ₱202,000. Bids for one bridge, at an estimated cost of ₱15,000, were rejected as being too high, and the work is being carried out by administration.

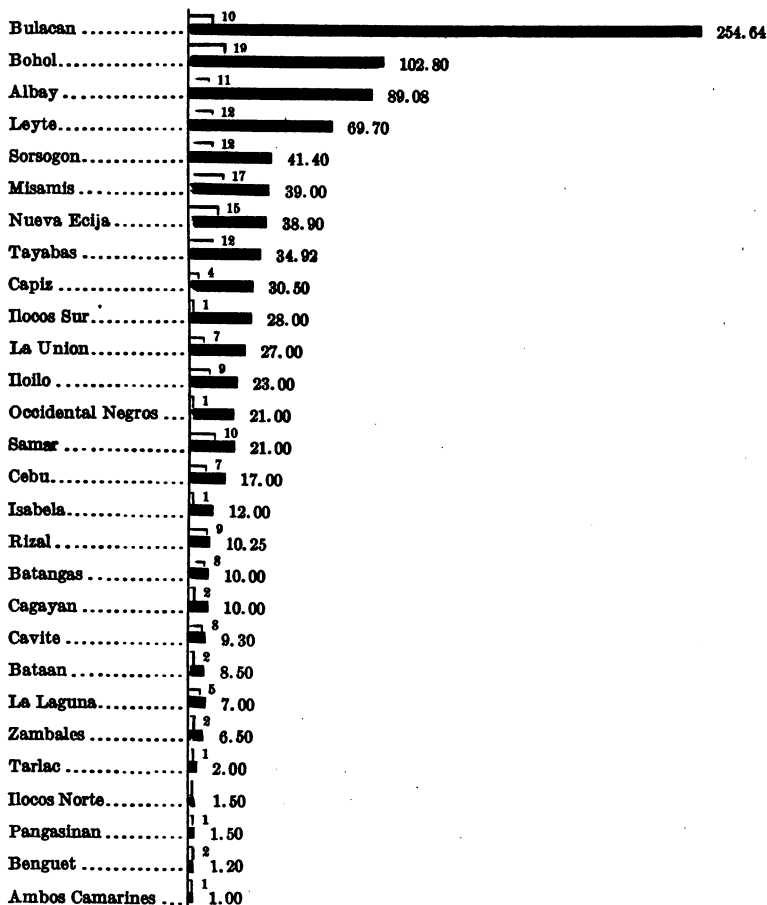
The reinforced concrete girder type of bridge on reinforced concrete pile bents continues to provide a satisfactory and economical type of permanent construction. Seventy-five per cent of the designs prepared for crossings, calling for reinforced concrete girder type of bridge, were of this type of substructure.

One of the most important structures designed during the period covered by this report was the Agno River Bridge at Bayambang, Pangasinan, on the Bayambang-Bautista Road. The proposed structure consists of four 39.62-meter (130 feet) steel spans, on concrete substructure, with timber pile foundations. The over-all length of the bridge is 161.93 meters. The estimated cost to construct is ₱10,000. Plans for this bridge were 70 per cent completed on January 1, 1914.

From the standpoint of aesthetic design the Molawin Bridge, over the Molawin River on the grounds of the Los Baños agricultural college, Laguna, was one of the most interesting projects handled. The plans for this proposed structure call for a two-rib reinforced concrete arch, parabolic in outline and of 15-meter clear span. The floor system of the main span is carried on columns resting on the arch ribs and skewback of abutments. An approach span on each end provides additional waterway and adds to the finished appearance of the bridge. The location is ideal for such a structure, the crossing being over a comparatively deep ravine section, and the foundations consist of adobe stone. The over-all length of the proposed bridge is 33 meters and the estimated cost to construct is ₱15,000.

The essential bridge and culvert statistics appear on the next two pages.

BRIDGES AND CULVERTS COMPLETED.

Fiscal year ending Dec. 31, 1914 (6 months).

Number of structures.

Total span meters.

NOTE.—No structures were completed in the provinces of Antique, Oriental Negros, Pampanga, Surigao, and city of Baguio.

REINFORCED CONCRETE BRIDGES AND CULVERTS.

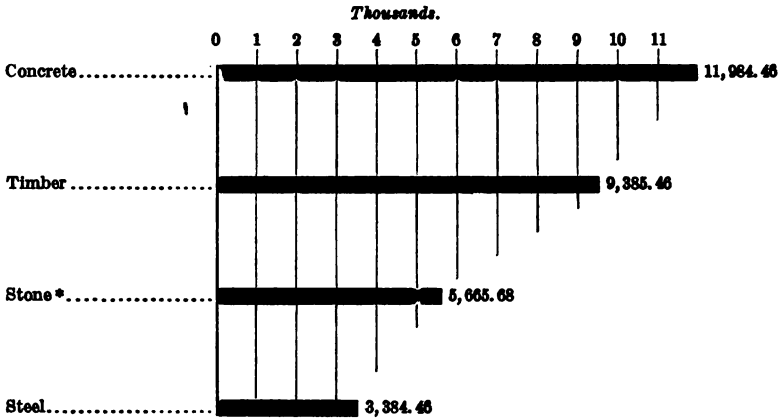
<i>Fiscal year.</i>	<i>Number.</i>	<i>Meters of span.</i>
1912.....	346.....	1,506.60
1913.....	504.....	2,008.05
1914 (6 months only).....	186.....	784.61

<i>Fiscal year.</i>	<i>Number of structures.</i>	<i>Total span meters.</i>
1910.....	507.....	3,234.00
1911.....	470.....	2,013.75
1912.....	358.....	1,700.06
1913.....	508.....	2,642.34
1914 (6 months only).....	190.....	918.69

NOTE.—These figures include durable bridges and culverts only. During the 6 months of 1914, 15 timber structures were completed, with a total span of 376.01 meters.

BRIDGES AND CULVERTS.

Total meters span in existence December 31, 1913.



REINFORCED CONCRETE BRIDGES AND CULVERTS.

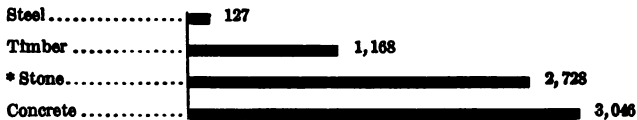
Fiscal year.	Meters, total span.
1911	7,709.09
1912	9,215.69
1913	11,223.74
1914 (6 mos. only.)	11,084.46

Durable	21,034.60
Temporary	9,385.46
Total	30,420.06

* Includes all durable structures other than steel and concrete.

BRIDGES AND CULVERTS.

Number of structures in existence December 31, 1913.



REINFORCED CONCRETE BRIDGES AND CULVERTS.

Fiscal year.	Number.
1911	2,004
1912	2,350
1913	2,854
1914 (6 months only)	3,046

Durable	5,901
Temporary	1,168

Total 7,069

* Includes all durable structures other than concrete and steel.

BUILDINGS.

The demand for public works has continued to be considerably in excess of the number which can be built with available funds. As a consequence, and following the policy of recent years, the new buildings are practically confined to those required for reasons of health and education. Fifty-four buildings were completed during the six months, of which 51 classify either as school accommodation or as sanitary improvement.

The policy of standardizing plans of buildings which would be required in many different localities was continued. At present the schools, the municipal markets and accessory tiendas, the provincial jails, and to some extent the smaller presidencias are standardized. A certain amount of individuality obtains in the majority of these standard type buildings by reason of location and amount of funds available, also by reason of the addition of a room on this structure, a clock tower on that, etc. These changes do not seriously affect the economy obtained, first, in the designing room; second, in the limitation of the sizes of reinforcing steel to a reasonable number; and third, in the establishing of market sizes of door and window work. It is largely owing to this standardization that the government has been able to meet a reasonable number of the requests for new buildings. Over nine-tenths of the buildings erected in the six months were standardized to a large extent.

Progress continued to be made in changing the wooden-truss and galvanized-iron roof construction to the more slightly and durable tile construction on steel trusses. The policy of durable construction was even more rigidly adhered to than heretofore, as is evident from the following tabulation:

Buildings constructed of reinforced concrete.

Year.	Number.	Capacity.		Concrete construction.
		Concrete buildings.	All buildings.	
		<i>Cubic meters.</i>	<i>Cubic meters.</i>	<i>Per cent.</i>
1911.....	54	132, 144	206, 368	64
1912.....	96	183, 673	255, 640	72
1913.....	108	346, 626	409, 025	85
1914 (6 months).....	51	169, 853	184, 160	92

The item concrete buildings in this tabulation does not include buildings of combination concrete and wood. It does include buildings with open sides provided the posts are of concrete. Other statistics for the half year are given in the following table:

Buildings completed, fiscal year ending Dec. 31, 1913 (six months).

Provinces.	Execu- tive and adminis- trative.	Schools.	Public markets.	Tiendas.
Cebu.....	1	3	4	2
Iloilo.....		2	2	3
Laguna.....		1	3	
Leyte.....		4		
Albay.....		2	1	
Tayabas.....	1	2		
Batangas.....			1	
Bulacan.....		1	1	
Capiz.....		1		1
Occidental Negros.....			1	1
Pampanga.....			1	1
Pangasinan.....		2		
Tarlac.....			1	1
Bohol.....	1			
Cagayan.....		1		
Cavite.....		1		
Isabela.....		1		
Manila.....	1			
Nueva Ecija.....		1		
Oriental Negros.....		1		
Sorsogon.....		1		
Zambales.....		1		
Total.....	4	25	15	10

¹ Including markets at Carcar, Cebu, 2 buildings.² Tiendas supplementary to public markets, including Tiendas at Carcar, Cebu, 2 buildings; Santa Barbara, Iloilo, 2 buildings.

Total cost, ₱ 796,494.02. Total buildings, 54.

The above figures include only buildings completed during the six months.

No buildings were constructed by the bureau of public works in Ambos Camarines, Antique, Bataan, Benguet, Ilocos Norte, Ilocos Sur, La Union, Rizal, Misamis, Samar, Surigao, and City of Baguio.

BUILDING WORK IN MANILA.

The reconstruction of the cold storage at the ice plant has been continued throughout the year and is now rapidly approaching completion. Three sections have been completed, at an average cost of approximately ₱110,000 each. The fourth section is in course of reconstruction, and preparation for the reconstruction of the fifth and last section is now being made.

The balance of heavy construction work for the six months ending December 31, 1913, consisted mainly of installing floors in the bureau of supply bodegas, the construction of the dispensary and the girls' dormitory, Taft Avenue. The concrete work on the girls' dormitory has been completed up to the level of the third floor, and although the fact that this building is a distinctly architectural piece of work, requiring the greatest care and attention to details and finishing, makes progress somewhat slow, the contractor anticipates completing this work well within the contract time (October, 1914). The amount of the contract is ₱252,000 and the work completed to December 31, 1913, is approximately ₱130,000.

The aquarium has been completed and accepted by the director of the bureau of science during the period under review. Minor repairs and alterations prevented its being opened to the public until Febru-

ary, 1914. The iron frames which incase the glass windows of the aquarium have been waterproofed with bitumistic enamel, and various plumbing defects discoverable only after actual operation of the system have also received attention.

The south bureau of supply bodega floor was completed during the latter part of July and the installation of the north bureau of supply bodega floor was commenced immediately after and was completed on September 10, 1913. The completed work has since proved satisfactory in all respects. The floors were designed to carry 1,000 pounds per square foot, and the area that has since been operated with this load has proved satisfactory. It is possible that the above-mentioned 1,000 pounds per square foot may be increased in course of time, after the piles have developed a greater bearing power, due to the solidification of the substrata and the higher skin friction developed.

The expenditure for general repairs to buildings occupied by the insular government has been reduced considerably in comparison with previous years. In view of the financial situation of the insular treasury, no building repairs have been made except those essential to stability. Decorative features and alterations that tended only to greater convenience were disapproved in all cases when bureau of public works funds were involved. The result has been that only ₱119,848.31 was expended on repair work in buildings occupied by the insular government in the city of Manila and the constabulary cuartels in the provinces.

Labor conditions during the period under review have been satisfactory, inasmuch as there has been no difficulty in securing skilled and unskilled labor. This is probably caused by the falling off in amount of private building work.

WATER SUPPLY.

The inhabitants of the islands continue to evince a lively and widespread interest in the improvement of local water supply. This work, above all other work performed by the bureau of public works, aims directly at a lessening of the death rate and an improvement in the physical well-being of the Filipino. While any census of the users of the supply already provided is impracticable, our engineers report that at least one-tenth of the population of the islands is within carrying distance of one or another of the new sources of supply.

The system of driving artesian wells, as developed by the bureau, continued to be the largest factor in opening new sources of supply. The number of successful wells in existence at various periods was as follows:

June 30, 1905-----	2	June 30, 1910-----	302
June 30, 1906-----	5	June 30, 1911-----	526
June 30, 1907-----	54	June 30, 1912-----	673
June 30, 1908-----	68	June 30, 1913-----	813
June 30, 1909-----	151	Dec. 31, 1913-----	902

The increase for the 6 months was 84 wells, or 10 per cent over the figure for the beginning of the year. Of these wells 55 successful and 5 unsuccessful were drilled with deep-well rigs. Twenty-three of the deep wells were flowing wells.

The total depth of deep wells drilled was 7,966.56 linear meters. The expenditure was ₱174,656.87, making the average cost per meter

₱21.92, which includes the charges of all kinds except depreciation. At the end of the year 21 deep-well rigs were in commission.

There was no change in the distribution of charges between the insular and provincial artesian-well policy.

During the six months one other water-supply project was completed at a cost of ₱17,978.07, leaving 10 projects of this class active on December 31, 1913.

The spillway of the Osmeña waterworks dam was completed and stood successfully a depth of water of 30 centimeters over the lip of the dam. A steel footbridge has been completed over the spillway.

The water-supply system at Bayambang, Pangasinan, has been extended until all the important street corners have faucets and fire plugs. The supply is a flowing artesian well yielding 500 gallons per minute.

A water-supply system, costing ₱7,200, was completed at Boac, Marinduque. The source of supply is two artesian wells connected to a pumping plant. Every other street corner is supplied with a public hydrant.

IRRIGATION, RIVER CONTROL, AND WATER PROJECTS.

Irrigation work, more than any other work of the bureau, was affected by the financial stringency. Irrigation funds available December 31, 1913, were only ₱132,425.16, of which all but ₱6,991.27 had been allotted to projects. Recent legislation made no new appropriation.

The irrigation construction at San Miguel, Tarlac, was completed on November 30, as scheduled. One thousand and eighty hectares were irrigated last season.

No new work of importance was undertaken during the year in either irrigation or river control.

As a result of Act No. 2152, providing a system for the appropriation of public waters, 15 original applications were filed, each requiring investigation for the purpose of safeguarding the interests of the public. Under the same law five adjudications of water-right controversies were made, as follows: O'Donnell, Moriones, and Tarlac Rivers, project irrigation No. 219; Porac, Caulamain, and Gumain Rivers, project irrigation No. 223; Angat River, project irrigation No. 226; Santa Rosa, San Cristobal, and Dismo Rivers, project irrigation No. 231; and Ange River (Pampanga), project irrigation No. 238.

The total expenditures on the above classes of work were: Irrigation, ₱169,776.91; river control, ₱21,582.85.

NAGUILIAN ROAD.

A consideration of the cost of maintaining the Benguet Road in past years, together with the fact that the cost of maintenance and reconstruction would increase rapidly in the future, pointed to the necessity of securing, if possible, a less expensive highway from the lowlands to Baguio. This subject received considerable study during the year.

On December 26, 1913, the Hon. Vincente Singson, member of the Philippine Commission, and the undersigned were appointed a committee by resolution of the Commission to go over the Benguet and

Naguilian Roads and make an investigation of the advisability of continuing the Benguet Road or of abandoning it and improving the Naguilian Road. The committee recommended that the Benguet Road be maintained only until the Naguilian Road could be constructed, and that it then be abandoned. The bureau of public works recommends that the Naguilian Road be reconstructed and surfaced in such a manner as to make it available for all classes of traffic between Bauang in the province of La Union and the city of Baguio.

The estimated total cost of the road from Bauang to Baguio, including the construction of the Naguilian and Ripsuan Bridges, is ₱760,000.

The Ripsuan Bridge will be constructed during the coming dry season and an aerial tramway will be built across the Naguilian River for use in connection with the existing floatable bridge until funds become available for the construction of a permanent bridge.

BENGUET ROAD AND AUTOMOBILE LINE.

Several bad slides occurred on the Benguet Road, but the passenger and express freight business was handled throughout the year without serious delay. The maintenance of the road cost ₱129,768.01 for the six months, making no deduction for corral receipts. The automobile equipment assigned to the Baguio office included the 18 De Dion cars with 4 trailers and 8 Yorkshire steam wagons with 4 trailers. The steam wagons hauled 529,878 kilos of freight at a total cost of ₱18,773.66. Repairs cost 23 per cent of this total.

The number of passengers carried by the automobile line was 4,092, as compared with 6,739 for the same six months of the year before. The freight carried totaled 771,947 kilos, of which 35,418 kilos, or 5 per cent, was express.

Expenses and receipts for the six months were:

Cost of operation-----	₱91,724.96
Cost of repairs-----	45,035.79
Total-----	136,760.75
Total receipts-----	78,589.02
Loss-----	58,171.73

BAGUIO.

The future of Baguio is assured by the fact that, although for the first time in five years none of the insular bureaus moved their office to Baguio, all the government and private cottages were rented and occupied and the hotels were fairly well filled. Expensive improvements were made at the country club. The number of auto parties from Manila increased markedly, there being as many as 12 cars making the trip on one day in the easter holidays.

The total expenditure supervised by the bureau in Baguio, exclusive of the cost of maintaining the Benguet Road and certain work done for private parties, was ₱69,231.44 for the six months.

MISCELLANEOUS.

The automobile line on the Island of Panay completed its second year of operation. The receipts from operation were only 63 per

cent of the ₱7,394.89 which the line cost for operation and repairs for the six months. Since the receipts for the previous year amounted to only 49 per cent of the cost of the line, the situation is improving.

Special attention was given to the discharge of the duties placed upon the bureau by the laws relative to motor-vehicle traffic. The number of such vehicles registered on December 31, 1913, was 2,646, an increase of 477 for the six months. During the same period 19 chauffeur licenses were suspended and 18 revoked. There were 82 convictions for violation of the law.

On October 13, 1913, the bureau issued its first printed technical handbook, replacing the typewritten Road and Bridge Manual issued to bureau engineers in 1908. This publication sums up the experience of local engineers with the tropical climate, heavy rainfall, earlier Spanish work, and available labor and work animals.

BUREAU OF NAVIGATION.

FRANK P. HELM, DIRECTOR; K. S. HECK, ASSISTANT DIRECTOR.

PERSONNEL.

No changes were made in the principal administrative officers of the bureau except that during the absence of the director, on leave in the United States from September 10 to the end of the year, Mr. K. S. Heck, assistant director and chief of the division of port works and lighthouse construction, assumed his duties as acting director.

The number of employees and changes in all divisions of the organization were as follows:

Officers and employees Dec. 31, 1913.

	Americans.	Filipinos.	Others.	Total.
Director.....	1			1
Assistant director and chief.....				
Division of port works.....	1			1
Second assistant director.....	1			1
Marine superintendent.....	1			1
Inspector of machinery.....	1			1
Medical inspector.....	1			1
Master mechanic.....	1			1
Lighthouse inspectors.....	2			2
Clerks, accountants, and stenographers.....	14	62	1	77
Captains.....	14			14
Chief engineers.....	9	2		11
Deck officers.....	9	11		20
Assistant engineers, marine.....	1	16		17
Machinists and oilers.....		58		58
Firemen and coal passers.....		94		94
Quartermasters.....		43		43
Boatswains.....		14		14
Sailors.....		141		141
Ships' carpenters.....		9		9
Stewards and cooks.....	1	34		35
Mess boys.....		36		36
Patrons.....		11		11
Launch engineers.....		15		15
Coxswains.....		20		20
Shop and yard men.....	9	262	91	362
Watchmen.....		12		12
Lighthouse keepers and assistants.....		181		181
Lighthouse keepers' apprentices.....		24		24
Boatmen, lighthouse division.....		81		81
Assistant engineers (civil), surveyors, and surveymen.....	7	8		15
Construction parties.....	6	81	3	90
Dredgemen.....	7	80		87
Total.....	86	1,295	95	1,476

Which compares with previous years as follows:

Date.	Ameri. ans.	Filipinos.	Others.	Total.
June 30, 1907.....	108	1,204	52	1,365
June 30, 1908.....	116	1,484	140	1,740
June 30, 1909.....	149	1,490	205	1,844
June 30, 1910.....	182	2,141	296	2,619
June 30, 1911.....	150	1,793	125	2,068
June 30, 1912.....	117	1,284	38	1,449
June 30, 1913.....	110	969	41	1,110
Dec. 31, 1913.....	86	1,295	95	1,476

The figures for June 30, 1913, are somewhat misleading, for the reason that the shop force was reduced to very much below the normal during the month of June on account of the exhaustion of funds appropriated for other divisions of the bureau and departments of the service for construction and repair work ordinarily done by the shops. The average number of employees was reduced instead of increased, as the figures would seem to indicate.

NAVIGATION DIVISION.

A fleet of 34 vessels (exclusive of motor boats), composed of 1 cable ship, 14 cutters, 4 seagoing launches, 13 harbor and river launches, and 2 ketches equipped with auxiliary kerosene engines, was maintained during the year, 21 of which, including the cable ship, 6 cutters, 3 seagoing launches, and 11 harbor and river launches, were in actual operation at the close of the year.

Of the remaining 13 craft, 2 cutters were loaned to and operated by the bureau of coast and geodetic survey and 1 to the department of Mindanao and Sulu, while 5 cutters, 1 seagoing launch, 2 harbor and river launches, and the 2 auxiliary ketches were out of commission.

The self-propelling snag boat on the Cagayan River formerly operated by this division was transferred to the port works division.

In order to maintain a sufficient number of vessels in commission to fill the transportation requirements of the government during the busier months, and yet keep the net cost of operation within the available funds, the policy pursued during previous years, of chartering the cable ship and occasionally a cutter for commercial voyages, was continued, ₱96,432.39 being collected for such services during the half year.

The gross cost of operation and maintenance of the fleet, including salaries of administrative officials, was ₱647,820.78, the receipts from operation ₱192,532.62, the large difference between cost and receipts being due, as heretofore, to the fact that no revenue was derived from the operation of the two lighthouse tenders or from towing launches assigned to the port works dredging fleet, together with the fact that the charges collected from other departments of the government are less than the cost of operation for the time vessels are actually used by them, while no allowance is made for idle time between voyages.

Aid was furnished to a number of vessels, mariners and others in distress, as follows:

On October 6, 1913, the British steamship *Melbourne*, bound from Newcastle, Australia, for Cebu, with coal, was stranded on a sub-

merged reef 2½ miles off the northeast coast of Siargao Island. The master put off in a small boat, and after a perilous trip of five days, the last two without food or water, arrived at Surigao, where an appeal for aid was made to the provincial governor, who advised Cebu and Manila by telegraph.

The lighthouse tender *Corregidor*, then at Cebu, was immediately dispatched to the scene of the wreck, the crew of 45 men was taken off, notices were posted warning all concerned against looting, and arrangements made with the constabulary at Surigao to place a guard on the vessel.

Another cutter was dispatched under charter from Manila, with salvage gear and representatives of the underwriters and owners, who attempted to refloat the vessel. Coal was thrown overboard to lighten the ship, but after success was apparently assured the winds of the northeast monsoon, which had just set in, became so strong that the seas generated on the open Pacific Ocean and to which the vessel was fully exposed, became so heavy that the work had to be abandoned. The *Melbourne* was broken up by the waves and entirely disappeared within 12 hours after its abandonment.

On December 10 the seagoing launch *Scout* was dispatched to Brookes Point, Palawan, to assist the lorchas *Ana Vasquez*, which, while bound from Himamaylan, Negros, to Iloilo, was struck by a storm and her rigging damaged to such extent that she drifted helpless before the northeast winds for 16 days, until she finally drifted on to the Palawan coast near Brookes Point, over 300 miles off her course.

The lorchas was towed by the *Scout* to the town of Lara, where materials for repairs were secured, and the passengers, of whom there were a considerable number, were returned to their homes at Himamaylan.

At 11.40 p. m. of December 23, while the cutter *Basilan*, bound from Manila to Culion, was passing Point Calavite, Mindoro, cries indicating distress were heard. The vessel was stopped, the launch and small boats lowered, and after a thorough search of four hours a total of 10 people, who had been clinging to pieces of wreckage since the capsizing of their vessel, at about 7 p. m., were picked up. Two passengers and 2 members of the crew were lost when the ill-fated vessel sank.

MARINE RAILWAYS AND REPAIR SHOPS.

The scale of operation in this, the only self-supporting division of the bureau, was reduced approximately 5 per cent, as compared with the previous year, on account of the reduced appropriations for construction and repairs in all departments of the service.

Work to the total value of ₱274,697.38 was done, however, with a total expenditure of ₱252,190.20, including ₱9,003.53 for repairs to the plant, leaving a net income from operation of ₱22,145.78, out of which ₱2,437.53 was spent for new equipment, leaving a net balance of ₱19,708.25.

INTERISLAND TRANSPORTATION.

Under the supervision of this division, the functions of which are to maintain a regular inspection service on all vessels operating under

contract with the government for the purpose of enforcing compliance with the provisions thereof and to supervise the operation of such government vessels as may be assigned to commercial runs where transportation facilities are not furnished by privately owned vessels, the regularity of service, accommodations, sanitary, and other conditions on all contract vessels were maintained in excellent condition.

Of the eight contracts in force with subsidies, aggregating ₱123,544 per annum, the primary object of two, viz, routes 10-A and 10-B, is to maintain a regular, fast, and first-class weekly service between Manila and Iloilo and Manila and Cebu, respectively; in other cases the object is to maintain a more frequent as well as regular and first-class service than would otherwise be furnished, such as, for instance, on route 1, the schedule for which provides for a monthly call at the Batanes Islands, where previously calls were made only during three consecutive months of the year, when weather conditions were most favorable; route 2, which provides for a regular service to ports on the east coast of Luzon; and route 8-A, for service to Palawan, where calls would otherwise be seldom made.

In addition to contract service the bureau cutter *Negros* was operated over route F, between Cebu and Surigao, with intermediate stops at all important ports on the north coast of Mindanao and at Dumaguete, Oriental Negros, some of which ports are irregularly served by small commercial vessels running out of Cebu, but between which there is practically no connection except via Cebu, where transshipment is effected between vessels on the different runs.

As the heaviest traffic is between the various Mindanao ports and Cebu, a considerable portion of which is carried by the commercial vessels, the earnings of the *Negros* (₱9,916.65) were much less than the cost of operation (₱34,049.70).

The seagoing launch *Scout* was operated between Cebu and Tacloban with trips via all important ports of southern Leyte, alternating with trips via all important ports of northern Leyte, under an agreement whereby any excess of cost of operation over receipts was paid by the provincial government.

The seagoing launch *Malecon* was also operated from August 12 to the end of the year under a similar agreement with the subprovince of Romblon, on alternate trips from Romblon to Tablas and Romblon to Sibuyan.

PORT WORK AND LIGHTHOUSE-CONSTRUCTION DIVISION.

Under this division, the functions of which are indicated by its name, comparatively few new projects were undertaken during the half year on account of the limited funds available therefor.

All projects under way on July 1, however, were either completed or continued, while all existing improvements were maintained in as good condition as the available funds would permit.

(a) *Vitas jetties*.—At Manila the only important new project under way at the beginning of the period was the construction of two jetties at the mouth of the Vitas Estero, in North Tondo, the object of which is to confine the waters from three esteros emptying into the bay in the immediate vicinity to one common mouth in order that the combined waters may maintain a navigable entrance channel without the assistance of dredges.

A number of large concrete blocks, cast by the Spanish port works engineers for use on the Manila breakwaters, but not placed, were used on the jetties which were extended as far as the available funds (₱25,000) would permit. The total length built was 310 linear meters of the south jetty and 45 linear meters of the north one.

(b) *Manila dredging*.—No maintenance dredging was done in the Pasig River, for the reasons that the channel was in fairly good condition at the beginning of the period and it was foreseen that the reduction of funds for current port works expenses from ₱304,000 allotted for the previous year to ₱268,800 for the year July 1, 1913, to June 30, 1914, together with the addition of a large seagoing dredge to the fleet to meet the increasing necessity for redredging and enlarging the deep-water basin of the outer harbor and for maintaining the newly enlarged channel at Iloilo, would require the utmost economy if operations were to be continued throughout the year.

Some dredging (54,000 cubic meters) was done in the outer harbor alongside piers 3 and 4 and in the fairway between the piers and the harbor entrance, and some 10,000 cubic meters removed from the bar at the mouth of the river during October and November by the new seagoing dredge, the limited amount being due to the necessity for sending the dredge to Iloilo at the earliest possible date, and the work done was intended chiefly as training for the crew, who had never manned a vessel of this type before.

Work was continued in the esteros, however, and 83,335 cubic meters of material dredged from various channels, as follows: Vitas, 42,594; Reina, 15,112; Provisor, 2,492; San Miguel, 9,605; Bancusay, 13,360; and Pandacan, 172, practically all the excavated material being used for filling low insanitary lands in the vicinity of the work.

(c) *Steel piers*.—The steel piers were maintained in good order as usual. Two new gangways for the use of passengers boarding and leaving vessels were built; the northern half of the wood block pavement on pier 5 was partly relaid and entirely resurfaced with hot coal tar, pitch, asphalt, and sand; one panel of reinforced concrete floor slab near the front entrance, damaged by the heavy traffic of large motor trucks, etc., was replaced; the steel floor system and shed framing were cleaned and repainted where required; 74 broken fender piles were replaced by new ones and 82 additional piles driven in clumps or dolphins alongside of pier 5 to fend off vessels 6 feet from the pier in compliance with the requirements of the bureau of health, etc.

(d) *Pasig River walls*.—The old Pasig River and canal walls built prior to the American occupation were repaired in numerous places near the customhouse, the old office of the captain of the port, between the foot of the Malecon Drive and the canal leading to the outer harbor, and along the canal itself, where numerous cracks and other defects had developed, and a portion of the stone paving around the office building on Engineer Island where settlement had been uneven was relaid to grade.

(e) *Breakwaters*.—About 70 tons of stone was placed on the inner slope of the south breakwater, where a portion of the surface layer had started to slide, but aside from this no further repairs were

required on either breakwater, both of which are now in very good condition.

(f) *Mariveles Wharf*.—The reconstruction in permanent materials of the quarantine-station wharf at Mariveles was started on September 15, 1913, by the Atlantic, Gulf & Pacific Co., of Manila, under contract approved June 21, and at the close of the year was approximately 75 per cent completed.

(g) *Cebu*.—At Cebu, where the 250-meter, reinforced-concrete wharf was completed during June, 1913, the riprap dike and wall beneath the wharf for retaining the back fill was completed over a length of approximately 100 meters, and the berths in front of the wharf dredged to 28 and 30 feet at mean low water by the removal of 19,094 cubic meters of sand, mud, and small boulders, thus making the wharf available for the largest vessels visiting the port.

The embankment supporting the Arrastre tracks beyond the west end of the wall, and which had been damaged by the serious typhoon of October, 1912, was protected from a recurrence of such damage by placing some 498 tons of heavy riprap along the exposed slopes, at an approximate cost of ₱1,200.

(h) *Iloilo*.—At Iloilo the redredging of the lower reach of the river, discontinued during the latter part of the fiscal year 1913 on account of the shortage of funds, was resumed on July 21 and continued throughout the remainder of the year, dredge *No. 1* removing 205,505 cubic meters, while the seagoing dredge, which did not arrive until December 19 and began work on the 22d, removed an additional 27,000 cubic meters.

The maintenance of this channel will always require periodical redredging. There is no feasible way to stop the deposition of silt constantly going on (more rapidly during the southwest monsoon than during the northeast). The construction of the proposed groin or jetty off Molo Point, if built to a sufficient length to cause the erosion of a new channel across the Oton bank, would tend to check it to a certain extent by throwing the heavily silt-laden water across the Oton bank into the deeper channel at a greater distance from the river mouth, thus allowing a portion of the silt to settle before reaching the river mouth; but this will not be sufficient to stop the silting entirely.

Work on the new reinforced-concrete wharf in the upper reach of the river was begun in August and continued through the remainder of the year, with 32.3 linear meters of wharf completed, an additional 18 meters partly completed, and foundation piles driven over a total length of 120 meters at the close of the year.

(i) *Cagayan River*.—The latter part of the calendar year being the flood season on the Cagayan River, comparatively little work was done by the snag boat in the main channel.

Advantage was taken of this fact to make a number of necessary repairs to boilers and machinery, and the remainder of the time spent in dredging a canal for the use of river craft entering and leaving Aparri.

(j) *Lighthouse construction and repairs*.—Two new minor lights were established on temporary supports, and the work of placing the existing lighthouse system upon a permanent basis was carried forward as rapidly as the available funds would permit.

Twenty-three new structures of permanent materials, replacing temporary construction, were built, including 4 reinforced-concrete keepers' dwellings, 3 steel towers, 4 reinforced-concrete towers or beacons, and 12 minor structures, such as kitchens, cisterns, steel flagpoles, etc., all in accordance with standard plans.

A new day mark was erected at the head of the Pasig River for the guidance of vessels navigating the Laguna de Bay.

Repairs to roofs, ceilings, floors, windows, doors, etc., were made at 11 light stations, and 5 channel beacons rebuilt or repaired.

Two projects not included in the above list were under way at the close of the year.

(*k*) *Surveys*.—A complete resurvey of the Pasig River from Laguna de Bay to the Ayala Bridge at Manila, with accurate soundings, together with original surveys of the Mariguina River from Pasig to the Santolan pumping station, and of the Pateros and Taguig esteros from the Pasig River to Laguna de Bay, were made.

At Zamboanga a series of borings over the proposed wharf site were being taken at the close of the year for the determination of the character of materials and foundation difficulties to be dealt with during construction.

LIGHTHOUSE MAINTENANCE DIVISION.

The number of lights in operation was increased by two, one on the eastern end of Malamaui Island at the entrance to Isabela Channel, a small lens lantern mounted upon a timber tower erected by a company of lumber dealers operating sawmills at Isabela, Basilan, the other a small lens lantern on the boat landing at Maasin, Leyte, while three oil-burning lights, viz., the two south breakwater lights at Manila and one at San Nicolas Shoal, Manila Bay, were changed to automatic flashing acetylene, of the American gas-accumulator system, while a sixth-order occulting light was temporarily substituted for the first-order flashing light at Cape Engaño pending the repair of typhoon damages to the lantern.

The personnel, consisting of 181 keepers and assistants, 24 apprentices, and 81 boatmen, all Filipinos, was maintained at the same number throughout the period, with no serious complaints as to the services rendered. Two lighthouse tenders were operated during practically the entire period, all buoys in the southern or second district were cleaned and painted, and as a whole the lighthouse establishment was in a very satisfactory condition at the close of the year.

BUREAU OF POSTS.

DIRECTOR, C. M. COTTERMAN; ASSISTANT DIRECTOR, W. G. MASTERS.

Officers and employees of the bureau at the close of the fiscal year 1913.

Director.....	1
Assistant director.....	1
Superintendents and other officials.....	9
District inspectors.....	6
Postmasters.....	630

Clerks.....	243
Messengers and porters.....	173
Railway postal clerks.....	13
Letter carriers.....	578
Telegraph operators.....	276
Linemen.....	312
Mechanics and enginemen.....	21
Drivers and teamsters.....	13
Mail carriers and contractors.....	318
Total.....	2,624

CHANGES IN PERSONNEL.

Number appointments:	
Classified service.....	21
Unclassified service.....	496
Number reinstatements.....	2
Number removals:	
Classified service.....	2
Unclassified service.....	76
Number resignations, voluntary:	
Classified service.....	17
Unclassified service.....	335
Number transfers to bureau.....	3
Number deaths.....	4

The following statement of the number of American and Filipino officers and employees, exclusive of mail carriers and contractors, at the close of each of the last 10 fiscal years and the six months ending December 31, 1913, is submitted to show the increase in the relative number of Filipinos employed:

	Ameri- cans.	Fili- pinos.	Total.
June 30, 1904.....	197	380	577
June 30, 1905.....	156	456	612
June 30, 1906.....	223	780	1,003
June 30, 1907.....	210	881	1,091
June 30, 1908.....	237	1,128	1,365
June 30, 1909.....	201	1,166	1,367
June 30, 1910.....	191	1,380	1,571
June 30, 1911.....	194	1,704	1,898
June 30, 1912.....	190	1,858	2,048
June 30, 1913.....	179	2,047	2,226
Dec. 31, 1913.....	178	2,128	2,306

The number of post offices, money order, savings bank, and telegraph offices, and municipalities with free-delivery service at the close of the year is shown in the following statement:

Dates.	Post offices.	Money- order offices.	Savings bank offices.	Telegraph o.f.fices.	Municipali- ties with free- delivery service.
Dec. 31, 1913.....	661	285	437	293	452
June 30, 1913.....	590	275	437	290	440
Increase.....	71	10	0	3	12

POSTAL DIVISION.

Free-delivery letter-carrier service was established in 9 municipalities, making a total of 448 municipalities outside of Manila in which this service was in operation on December 31, 1913. The cost of this service outside of Manila was ₱45,519.99, an increase of ₱3,484.39 over an equal period of the preceding year.

The letter carriers in the city of Manila delivered 1,326,213 pieces of mail, an increase of more than 1.3 per cent over the last year, and collected 1,036,237 pieces from street letter boxes, a decrease of about 9 per cent. The number of articles bearing special-delivery stamps and delivered by special messengers in Manila amounted to 8,997. The mail advertised in Manila amounted to 14,925 pieces, of which 1,473 were subsequently delivered, the balance being turned into the dead-letter office for disposition.

The collect-on-delivery service, established January 1, 1913, which provides a means to meet the requirements of persons who wish to pay at the time of their receipt for articles sent to them through the mails and also meet the requirements of merchants and others who wish to recover, through the agency of the post office, the charges on articles supplied by them, is growing in favor. During the last six months of this service, 2,489 such packages, involving collections amounting to ₱23,251.57, were handled.

SECOND-CLASS PUBLICATIONS.

On July 1, 1913, 69 publications printed in the islands were listed as second-class matter, and 7 news dealers held permits to mail publications at the second-class rate of postage. During the 6 months 9 new publications and 1 news dealer were admitted, and 3 publications and 2 news dealers were discontinued. On December 31, 1913, there were 75 second-class publications and 6 registered news dealers.

Statement of second-class postage paid during the fiscal year 1913 and the six months ended December 31, 1913:

Fiscal year 1913.....	₱15,998.79
Six months ended Dec. 31, 1913.....	9,011.82

The following is a summary of the registered mail handled:

	Fiscal year 1913.	Six months ended Dec. 31, 1913.
Pieces of mail registered at Philippine offices.....	617,876	327,595
Pieces received from United States.....	51,031	17,281
Pieces received from foreign countries.....	72,425	42,177
Pieces sent to United States.....	72,722	40,660
Pieces sent to foreign countries.....	47,143	28,024
Pieces sent from one Philippine office to another Philippine office.....	498,011	258,911
Pieces handled by the Manila post office.....	650,805	305,181

The exchange of mails with the United States and foreign countries is summarized as follows:

	Fiscal year 1913.	Six months ended Dec. 31, 1913.
Number of mails dispatched from the United States and received at Manila	96	56
Number of pouches of letters received from the United States	973	509
Number of pouches of registers received from the United States	3,597	1,673
Number of sacks of papers and merchandise received from the United States	21,361	12,567
Number of mails sent to the United States	112	50
Number of mails therein	73	37
Number of pouches of letters sent to the United States	973	447
Number of pouches and sacks of registers sent to the United States	2,722	1,312
Number of sacks of papers and merchandise sent to the United States	2,945	1,379
Number of bags sent to United States ships and troops in foreign countries	1,250	390
Number of bags received from United States ships and troops in foreign countries	621	313
Number of mails received from foreign countries	644	343
Number of bags received from foreign countries	9,636	4,790
Number of mails sent to foreign countries	623	315
Number of bags sent to foreign countries	4,525	2,180
Net weight of letters, grams, sent to foreign countries	9,203,189	5,341,746
Net weight, grams, of other articles sent	26,966,583	14,238,400
Number of parcel-post packages sent to foreign countries	3,381	2,044
Number of parcel-post packages received from foreign countries	6,895	3,981

¹ Including 72 sacks and 158 cases.

² Including 7 cases.

³ Including 1,037 sacks and 1 case.

⁴ Including 138 to Honolulu and 8 to Guam.

⁵ Including 126 from Honolulu and 68 from Guam.

⁶ Including 845 registered parcels.

⁷ Including 364 registered parcels.

The following is a summary of articles received and disposed of in the dead letter office:

	Registered articles.	Ordinary letters.	Ordinary packages.	Total.
ARTICLES RECEIVED.				
From—				
United States	5	1,985	68	2,058
Foreign countries	10	1,083	103	1,196
Manila post office and other Philippine sources	195	28,309	2,096	30,600
Returned after attempt to find senders		1,621		1,621
	210	32,998	2,267	35,475
DISPOSITION MADE.				
Returned to United States		3,689	540	4,229
Returned to foreign countries		2,548	747	3,295
Request matter, returned to senders in the Philippines	37	1,172	75	1,284
Opened and returned to senders		14,095	37	14,132
Containing money, drafts, stamps, etc., returned to senders		66		66
Containing other valuable matter, returned to senders		1	13	14
Destroyed	8	11,391	814	12,213
Containing money, drafts, stamps, etc., filed		27		27
Containing other valuable matter, filed	165	9	41	215
Total accounted for	210	32,998	2,267	35,475

At the close of the year there were on file in the dead-letter office 367 registered articles and 39 letters containing money, drafts, or stamps and 1,166 letters and packages containing other valuables. During the year money to the amount of ₱98 was taken from letters which had been on file more than one year and turned into postal revenues as miscellaneous receipts.

The following is a comparative statement of the money-order business for the fiscal year 1913 and the six months ending December 31, 1913:

	Fiscal year 1913.	Six months ended Dec. 31, 1913.
Number of orders issued payable in the Philippines.....	200,653	153,282
Amount of same.....	P12,848,999.08	P8,552,365.08
Fees on same.....	P59,891.46	P49,298.48
Number of Philippine orders paid and repaid here.....	197,838	116,771
Amount of same.....	P12,857,359.26	P6,738,374.22
Deposits of money-order funds received at Manila from provincial offices.....	P10,067,750.52	P5,206,580.34
Number of orders issued payable in the United States and possessions.....	68,157	34,856
Amount of same.....	P3,556,645.40	P1,764,000.76
Fees on same.....	P31,315.60	P15,586.00
Number of orders issued for payment in other countries.....	2,962	1,354
Amount of same.....	P137,560.24	P56,381.25
Fees on same.....	P1,599.88	P687.20
Number of orders of the United States and other countries paid in the Philippine Islands.....	10,236	5,190
Amount of same.....	P519,118.14	P263,170.72
Amount of Philippine orders paid in the United States and other countries.....	P3,265,816.68	P1,936,226.96

TELEGRAPH DIVISION.

The following is a summary of the telegraph business:

Telegrams sent.	Fiscal year 1913.		July 1 to Dec. 31, 1913.	
	Number.	Value.	Number.	Value.
Insular, provincial, and municipal, official.....	149,524	P141,500.28	47,419	P45,938.58
Weather bureau.....	51,398	45,173.12	17,335	29,893.78
Federal Government, official.....	9,087	12,205.64	4,550	7,722.76
Commercial.....	528,696	412,035.86	256,199	225,660.28
Total.....	738,705	610,914.40	325,503	309,215.40

The changes in the telegraph service are summarized as follows:

	Fiscal year 1912.	Fiscal year 1913.	July 1 to Dec. 31, 1913.
Telegraph lines built.....kilometers..	374.2	109.48	43.4
Telegraph lines rebuilt.....do.....	162.8	890.56	.....
Telephone lines converted to telegraph.....do.....	24.1	62.10	.....
Destroyed by typhoons.....do.....	.....	11.27	.....
Shortened in rebuilding.....do.....	.....	26.36	.....
Telegraph land lines abandoned.....do.....	.....	.....	25.1
Telegraph cables laid.....do.....	199,753	162,621	.....
Telegraph cables recovered.....do.....	321,167	.....	23.4
Telegraph wires at close of year.....do.....	7,277.90	7,431.85	7,450.16
Telegraph cables at close of year.....do.....	1,732.940	1,895.561	1,872.161
Telegraph offices opened.....number..	37	23	7
Telegraph offices closed.....do.....	8	3	3
Telegraph offices at close of year.....do.....	270	290	293

POSTAL SAVINGS BANK DIVISION.

Summary of the Postal Savings Bank Service.

	Fiscal year 1911.	Fiscal year 1912.	Fiscal year 1913.	July 1 to December 31, 1913.
Number of bank offices at close of year:				
First class.....	26	39	39	40
Second class.....	270	267	269	268
Third class.....	118	131	129	129
Total.....	414	437	437	437
Number of new accounts opened during the year.....	19,285	12,442	9,854	5,390
Number of accounts closed during the year.....	3,583	5,444	5,747	3,028
Number of accounts open at close of the year.....	28,804	35,802	39,909	42,271
Increase over prior year.....	15,702	6,998	4,107	2,362
Average amount of each open account at close of year.....	P72.89	P66.73	P62.15	P66.76
Number of deposits during the year.....	63,613	61,641	56,387	33,651
Average amount of deposits.....	P44.30	P50.39	P52.49	P49.35
Total deposits made by depositors.....	P2,818,161.95	P3,106,419.23	P2,959,875.80	P1,638,739.30
Annual accrued interest placed to credit of depositors June 30.....	P27,983.51	P34,116.81	P37,244.45	P22,100.83
Number of withdrawals during the year.....	22,004	29,064	32,075	17,255
Average amount of withdrawals.....	P110.25	P96.92	P90.58	P76.45
Total amount of withdrawals.....	P2,425,927.32	P2,816,907.30	P2,905,624.30	P1,319,189.73
Savings bank stamps sold.....	P31,963.65	P22,444.35	P16,934.60	P11,532.20
Savings bank stamps redeemed.....	P27,596.00	P21,346.00	P17,161.00	P11,151.00
Savings bank stamps outstanding.....	P6,359.05	P7,457.40	P7,231.00	P7,618.20

Classification of depositors.

	Open accounts June 30, 1913.	New accounts opened from July 1, 1913, to Dec. 31, 1913.	Accounts closed from July 1, 1913, to Dec. 31, 1913.	Open accounts Dec. 31, 1913.
As to nationality:				
Americans.....	5,221	972	949	5,246
Filipinos.....	32,908	4,148	1,892	38,162
Europeans.....	1,036	167	100	1,103
Asiatics.....	684	99	79	704
Societies.....	60	4	8	56
As to occupation:				
Professional.....	4,435	518	355	4,598
Clerical.....	4,263	702	307	4,658
Students.....	16,298	1,597	1,052	16,843
Mercantile.....	1,622	261	114	1,769
Agricultural.....	1,673	220	94	1,799
Artisans.....	2,338	384	150	2,572
Domestics.....	1,410	309	86	1,633
Laborers.....	2,377	367	148	2,596
Soldiers and sailors.....	2,554	606	513	2,647
Policemen and firemen.....	614	106	37	682
Women, no occupation.....	957	153	100	1,010
Children.....	1,056	154	51	1,159
Miscellaneous, unclassified.....	222	10	13	219
As to sex:				
Male.....	30,951	4,210	2,380	32,781
Female.....	8,898	1,176	640	9,434
As to marriage relation:				
Married.....	9,600	1,558	672	10,486
Unmarried.....	30,249	3,828	2,348	31,729

Statement of expenditures and income of the Postal Savings Bank.

	Fiscal year 1911.	Fiscal year 1912.	Fiscal year 1913.	From July 1 to Dec. 31, 1913.
EXPENDITURES.				
Salaries and wages.....	P63,201.90	P66,078.27	P67,581.51	P40,078.82
Expense personnel.....	233.78	218.36	265.44	160.93
Office expenses.....	11,781.72	11,270.81	12,927.35	5,929.13
Rentals.....	2,457.71	2,720.72	2,753.90	1,443.49
Incidental expenses.....	1,286.21	1,235.55	781.29	411.56
Total operating expenses.....	78,961.32	81,523.71	84,309.49	48,023.93
Interest paid on closed accounts.....	5,815.03	7,528.23	6,869.49	1,869.65
Premiums paid on bonds purchased.....	2,000.00			
Accrued interest paid on bonds purchased.....	4,911.11			
British income tax paid on Manila R. R. Co. bonds.....			449.02	
Interest added to accounts at close of year as deposits.....	27,993.51	34,116.81	37,244.45	22,100.83
Total.....	119,680.97	123,168.75	128,872.45	71,994.41
INCOME.				
Earnings for year collected during year.....	51,582.44	90,626.20	88,151.31	10,653.95
Accrued earnings uncollected at close of year ac- count not due.....	39,577.10	25,569.53	35,237.92	55,914.61
Total.....	91,159.54	116,195.73	123,389.23	66,568.56
Net deficiency.....	28,521.43	6,973.02	5,483.22	5,425.85

Investments of bank funds at close of year.

	June 30, 1911.	June 30, 1912.	June 30, 1913.	July 1 to Dec. 31, 1913.
LOANS TO BANKS.				
International Banking Corporation, at 3½ per cent.....	P70,000.00	P70,000.00	P70,000.00	P70,000.00
Hongkong & Shanghai Banking Corporation, at 3½ per cent.....	70,000.00	70,000.00	170,000.00	170,000.00
Chartered Bank of India, Australia & China, at ¾ per cent.....	240,000.00	420,000.00	340,000.00	490,000.00
BONDS.				
Philippine Ry. Co. bonds, at 4 per cent.....	505,000.00	505,000.00	505,000.00	505,000.00
Manila R. R. Co. bonds, at 4 per cent.....	323,875.50	323,875.50	323,875.50	323,875.50
City of Manila bonds, at 4 per cent.....	460,000.00	460,000.00	460,000.00	4,000.00
Real estate mortgages, 8 per cent and 10 per cent.....	407,800.00	509,680.00	623,798.50	751,380.00
Total.....	2,076,675.50	2,358,555.50	2,492,674.00	2,770,255.50

Assets and liabilities of the bank.

	June 30, 1911.	June 30, 1912.	June 30, 1913.	July 1 to Dec. 31, 1913.
ASSETS.				
Loans to banks.....	P380,000.00	P500,000.00	P580,000.00	P730,000.00
Bonds.....	1,288,875.50	1,288,875.50	1,288,875.50	1,288,875.50
Real estate mortgages.....	407,800.00	509,680.00	623,798.50	751,380.00
Interest account.....	39,577.10	25,569.53	35,237.92	55,914.61
Cash in hands of postmasters.....	36,976.02	53,283.58	27,422.96	33,104.22
Total.....	2,153,228.62	2,437,408.61	2,555,334.88	2,859,274.33
LIABILITIES.				
Deposit fund, due depositors.....	2,099,474.49	2,388,986.42	2,480,482.37	2,822,132.77
Stamp fund, stamps outstanding.....	6,359.05	7,457.40	7,231.00	7,618.20
Insular treasurer, cash advanced from general funds to pay expense.....	47,395.08	40,964.79	67,621.51	29,523.36
Total.....	2,153,228.62	2,437,408.61	2,555,334.88	2,859,274.33

Revenues exclusive of the Postal Savings Bank.

	Fiscal year 1913.	July 1 to Dec. 31, 1913.
BY ITEMS.		
Stamp sales for postage.....	P611,767.59	P311,165.96
Stamp sales for registry fees.....	98,860.16	52,415.20
Stamp sales for commissions on C. O. D. parcels.....	386.80	550.52
Miscellaneous postage paid in cash.....	5,268.96	2,456.98
Second-class postage.....	15,998.79	9,011.82
Box rents.....	29,544.90	14,668.55
Unclaimed matter and sale of waste paper.....	106.85	684.20
Money-order fees.....	92,498.53	47,512.02
Stamp sales for telegrams.....	553,394.53	301,210.38
Telegrams paid in cash.....	12,347.25	8,005.02
Miscellaneous (telegraph division).....	867.81	56.30
Total receipts from all divisions.....	1,420,993.17	747,746.95
BY DIVISIONS.		
Postal division.....	761,885.05	390,963.23
Money-order division.....	92,498.53	47,512.02
Telegraph division.....	566,609.59	309,271.70
Total.....	1,420,993.17	747,746.95

The foregoing statement shows gains of 2.06 per cent in the postal division, 2.07 per cent in the money-order division, and 9 per cent in the telegraph division. The total revenues are 5.3 per cent greater for the period from July 1 to December 31, 1913, than they were for an equal period in the preceding fiscal year, while the cost of operation and maintenance was increased 10.23 per cent.

The following is the revenue account, bureau of posts, for the fiscal year 1913 and the six months ending December 31, 1913:

	Fiscal year 1913.	Six months ended Dec. 31, 1913.
Stamp sales.....	P1,263,663.35	P665,352.06
Second-class postage.....	16,694.52	9,011.82
Box rents.....	29,544.90	14,668.55
Money-order fees.....	92,498.53	47,512.02
Unclaimed matter, etc.....	106.85	408.80
Receipts from operation.....	13,485.02	10,793.70
Total.....	1,415,993.17	747,746.95
Receipts from operation:		
Telegraph.....	12,347.25	7,727.02
Miscellaneous.....	6,137.77	3,066.68
Total.....	18,485.02	10,793.70
Reduction of income.....	5,000.00	
Total.....	13,485.02	
Miscellaneous receipts from operation:		
Postal and telegraph, postal savings bank.....	5,469.96	2,734.98
Fines.....		275.40
Percentage on sales.....	126.11	50.80
Sales of supplies not carried in the assets of the bureau of posts.....	445.48	
Incidentals.....	96.22	5.50
Total.....	6,137.77	3,066.68

Comparative statement of expenditures for fiscal year 1913 and six months ending Dec. 31, 1913.

Accounts as classified by the insular auditor.	Fiscal year 1913.	Six months ended Dec. 31, 1913.
(B) Plant and equipment:		
(1) Permanent buildings and structures.....	P30,154.25	P3,028.09
(6) Construction of telegraph lines.....	30,107.54	11,705.30
(8) Land transportation equipment.....	42,783.56	(973.23)
(10) Stationary machinery.....	(4,100.00)	(2,306.00)
(11) Portable machinery, tools, etc.....	4,007.56	(128.51)
(12) Furniture and fixtures.....	58,719.39	7,670.39
(13) Miscellaneous equipment.....	45.48	(11.38)
Total.....	161,718.03	18,984.66
(D) Salaries and wages.....	967,852.26	525,255.92
(E) Office expenses:		
(1) Expenses of personnel.....	20,814.01	10,562.92
(2) Transportation.....	314,470.72	180,733.02
(3) General office expenses.....	71,601.45	34,267.96
(4) Rentals.....	26,128.12	13,312.59
(5) Special service.....	170.47	101.49
(6) Incidental general expenses.....	13,431.39	2,335.36
Total.....	446,616.16	241,313.34
(F) Maintenance:		
(1) Buildings and structures.....	12,009.47	2,629.63
(6) Telegraph and telephone lines.....	433,821.25	163,022.23
(8) Land transportation equipment.....	4,206.02	4,689.97
(10) Stationary machinery.....	203.39	.....
(11) Portable machinery, tools, etc.....	243.38	775.32
(12) Furniture and fixtures.....	4,553.11	8,459.73
(13) Miscellaneous equipment.....	1.62	42.94
Total.....	455,038.24	179,619.82
(C) Supplies on hand.....	86,912.27	46,956.72
(I) Prior year's expenses:		
(D) Accrued leaves and half salaries.....	.....	56,196.38
(E) Traveling expenses of appointees from United States.....	.....	3,017.83
Total.....	.....	59,214.21
Total expenses of bureau.....	1,944,312.42	1,071,344.67

Summary of accounts, bureau of posts, for the six months ending Dec. 31, 1913.

DEBIT.

To allotment of the Governor General for current expenses	P540,000.00
To Act No. 2191, for the construction and maintenance of wireless telegraph stations.....	57,000.00
To receipts from operation from July 1 to Dec. 31, 1913:	
Stamp sales for postage.....	P364,141.68
Second-class postage.....	9,011.82
Box rents.....	14,668.55
Money-order fees.....	47,512.02
Unclaimed matter, etc.....	684.20
Miscellaneous postage paid in cash.....	2,456.98
Telegraph revenues.....	309,271.70
	747,746.95
To amount brought forward from fiscal year 1913, for contingent obligations.....	145,691.94
Total	1,490,438.89

CREDIT.

Total expenditures	₱1, \$71, 344. 67
Contingent obligations	111, 057. 65
Contingent obligations (Act No. 2191)	52, 905. 99
Unexpended balance (surplus)	253, 130. 58
Total	1, 490, 438. 89

Statement of assets and liabilities, Dec. 31, 1913.

ASSETS.

Permanent improvements, plant and equipment:	
Buildings and structures	₱37, 350. 96
Telegraph and cable lines	1, 568, 792. 29
Land transportation equipment	66, 172. 30
Portable machinery, tools, etc	22, 352. 39
Furniture and fixtures	327, 919. 06
Miscellaneous equipment	675. 57
	₱2, 023, 282. 57
Supplies on hand	176, 694. 78
Accounts receivable	3, 308. 35
Cash:	
Insular treasury	140, 112. 61
In hands of postmasters	64, 836. 46
In hands of others officers	8, 101. 34
	213, 050. 41
Total	2, 416, 316. 11

LIABILITIES.

Accounts payable	105, 301. 11
Contingent obligations	111, 057. 65
	216, 358. 76
Net worth, Dec. 31, 1913	2, 199, 957. 35
Total	2, 416, 316. 11

BUREAU OF COAST AND GEODETIC SURVEY.

P. A. WELKER, DIRECTOR, JULY 1 TO DECEMBER 31, 1913.

The work of the coast and geodetic survey in the Philippine Islands was carried on under the same general plan as has applied since January, 1902, providing for the division of expenses between the Government of the United States and the government of the Philippine Islands.

Except during intervals when repairs were necessary, the parties attached to the five steamers, namely—*Pathfinder*, *Fathomer*, *Rombon*, *Marinduque*, and *Research*—available for duty, were continuously engaged in surveying.

Personnel, Dec. 31, 1913.

OFFICE FORCE.

Director	1
Computing division	8
Drawing division	23
Nautical division	3
Geographical division	5
Corresponding, accounting, and property division	8
Total	48

FIELD FORCE.

Assistants and aids (normal force).....	17
Watch officers, surgeons, engineers, and mates.....	15
Recorders	10
Petty officers, seamen, and firemen.....	181
Tide observers, laundrymen, and messmen.....	41
Total	264

Officers and employees of the bureau at the close of the year.

	Americans, 1913.	Filipinos, 1913.	Total, 1913.	Total, 1912.
Director.....	1	.....	1	1
Accountant.....	1	.....	1	1
Draftsmen-cartographer.....	2	.....	2	2
Clerks.....	1	2	3	3
Junior draftsmen.....	.....	21	21	21
Messenger.....	.....	1	1	1

CHANGE IN PERSONNEL.

Appointments:				
Classified service.....		3	3	.....
Unclassified service.....		1	1	.....
Reinstatements.....				1
Removals:				
Classified service.....				.....
Unclassified service.....				.....
Resignations, voluntary:				
Classified service.....				1
Unclassified service.....		1	1	.....
Resignations due to economy:				
Classified service.....				.....
Unclassified service.....				.....
Transfers:				
To bureau.....				1
From bureau.....				1
Deaths.....				.....

Statement of number of American and Filipino officers and employees at the time of rendering reports submitted to show relative numbers of Americans and Filipinos employed.

Dates.	Americans.	Filipinos.	Total.	Salary expenditures.
June 30, 1905.....	3	19	22	P 25,840.00
June 30, 1906.....	3	19	22	25,840.00
June 30, 1907.....	3	21	24	26,360.00
June 30, 1908.....	5	22	27	34,960.00
June 30, 1909.....	5	22	27	35,596.00
June 30, 1910.....	4	24	28	34,864.00
June 30, 1911.....	3	25	28	33,304.00
June 30, 1912.....	4	23	27	36,404.00
June 30, 1913.....	4	25	29	37,504.00
Dec. 31, 1913.....	4	25	29	18,852.00

¹ Six months.

The above statement does not include the director of coast surveys, who is an officer of the United States Coast and Geodetic Survey, nor per diems paid by the government of the Philippine Islands to the officer detailed to said position by the Superintendent of the United States Coast and Geodetic Survey.

TIDAL OBSERVATIONS.

Under the direction of the commanding officers of the vessels long series of automatic tide-gauge observations were obtained at various places throughout the islands. These are referred to in detail in the individual reports of these officers. Two gauges were loaned to the bureau of lands for a period of about three months in exchange for the results of the tidal observations which an observer detailed from that bureau obtained with the same in the vicinity of the mouth of the Cotabato River, Mindanao. The automatic gauge at Manila was in constant operation during the entire year. The results of these observations prove to be of great value for use in the establishment of reference planes for surveys and in the preparation of tide-prediction tables for the use of the navigator.

TABLE OF DISTANCES.

The annual revision of table of distances between ports of the Philippine Islands for the use of the board of rate regulations has been in progress during the period of this report. This work is referred to more in detail in the report relating to the drafting division of the Manila office.

GEOGRAPHIC NAMES.

Great progress has been made in this list of names. Approximately 100,000 names have been obtained, with the prospect of having them assembled in alphabetical form for publication in the near future. This matter is referred to more in detail under the part of this report relating to the drafting and geographic divisions.

FISHING BOUNDARIES.

During the month of September of this year the dispute in relation to the rights for fishing within certain boundaries of Manila Bay was referred to this bureau by the secretary of commerce and police of the government of the Philippine Islands. The legal points involved were thoroughly investigated and the delimitations of the boundaries, indicating the rights in accordance with the best information available, was represented upon maps and transmitted to the secretary. This subject is further referred to in the report of the chief of the geographical division.

The following is a list of publications issued from the division during the period covered by this report:

Charts:

Agents	647
Military authorities	266
Naval authorities	235
Civil authorities	545
United States Coast and Geodetic Survey, vessels	55
United States Coast and Geodetic Survey, suboffice	59
Miscellaneous parties	77
Sold for cash	741
Total	2,625

Tide Tables:	
Issued for official use	58
Agents	18
Sold for cash	34
Total	110
Nautical Almanacs:	
Sold for cash	86
Miscellaneous:	
Sailing direction issued	562
Catalogues issued	74
Notices to mariners issued	500
New charts published:	
No. 4410. Tablas Island and vicinity.	
No. 4432. Southwestern Negros.	
No. 4273. Silangan Pass and Hondagua harbor.	
No. 4638. Anchorages on Dinagat, Siargao, and Bucas Islands.	

COMPILATION OF GAZETEER OF PHILIPPINE GEOGRAPHIC NAMES.

The compilation of complete lists of geographic names to be published, as described in a special report on this subject dated June 30, 1913, has progressed steadily. On that date it was reported that 34,500 names of barrios and sitios had been received; 29,500 of these had been arranged alphabetically and copied into record books. It was subsequently found necessary to return about 40 per cent of these for correction, rearrangement, and additional information. On December 31, 1913, the total number received amounted to 91,500 names of barrios and sitios. It is now estimated that the list of barrios and sitios will contain when completed about 100,000 names and that the general alphabetical list will contain about 120,000 names.

The number of miles of detailed or actual shore line surveyed during the past 9½ years is as follows:

	Miles.		Miles.
1905	494	1910	1,637
1906	626	1911	1,229
1907	1,495	1912	1,316
1908	1,573	1913	945
1909	1,017	1914 (half year)	610

The number of miles of general coast line surveyed, as measured on charts by using 3-mile spaces of dividers, is as follows:

	Miles.		Miles.
1905	257	1910	1,190
1906	443	1911	542
1907	375	1912	748
1908	964	1913	605
1909	760	1914 (half year)	284

The number of miles of sounding lines run during the same period is as follows:

	Miles.		Miles.
1905	7,573	1910	19,208
1906	11,457	1911	23,432
1907	23,339	1912	25,297
1908	24,454	1913	22,238
1909	22,552	1914 (half year)	15,739

WORK OF VESSELS.

Pathfinder.—This vessel was engaged in general surveys consisting of triangulation, topography, and hydrography on the east coast of the island of Mindanao until October 10, and data were secured for the preparation of charts for this region, which was almost unknown previously.

On October 22 the vessel proceeded to Olongapo for the installation of wireless-telegraph apparatus and repairs. While the vessel was laid up for repairs a survey of the approaches to Manila, between Subic Bay and Fortune Island, was begun and continued until the end of the year.

Fathomer.—A secondary scheme of triangulation was carried over Busuanga Island and the small adjacent islands to the north of it. Topographic surveys were executed on the south and east shores of Busuanga and on the east and west shores of Coron Island and in the Cuyos. Owing to the extensive area assigned to this steamer for the purpose of execution of hydrographic surveys, the locality of the work was frequently changed in order to take advantage of the most favorable weather conditions. Between Mindoro and Busuanga, Framjee bank and Magallanes bank remain to be developed for shoals. Very few of the shoals in this region have ever been charted, and there are indications of dangers to navigation. It was necessary to space soundings in depth from 150 to 300 fathoms as close as 6 to 10 in 5 miles. This irregularity extends over an area of approximately 900 square miles. The submarine sentry was in use during the entire time while engaged in soundings in localities where there were indications of shoals and proved very valuable.

Fifteen stations for observing direction and strength of current were occupied in the northern part of the Sulu Sea and in the southern part of Mindoro Strait.

Five stations were occupied for the determination of the declination of the magnetic needle.

Romblon.—This steamer engaged in the hauling of material and in the erection of a wharf at Port Uson, which place was to be used to obtain supplies and water. The wharf is 324 feet long and 18 feet wide, except the outer 24 feet, which is 16 feet wide. A concrete dam was built at the source of water supply and a pipe laid to the wharf, a distance of about 600 feet.

A considerable amount of tertiary triangulation was executed during the period of this report, the work extending from Taytay Bay, on the east coast of Palawan, to the northern part of that island. The topographic work executed consisted of the mapping of the shores of the south coast of Batas Island, the north and west coasts of Maitiaguit Island, the shore of Sharks Fin Bay on Palawan Island, the west coast of Malabuctun Island, the western of the two bays on the north coast of Linapacan Island, the north coast of Gatoc Island, all of Popototan Island, and a number of unnamed smaller islands.

Launch and boat hydrography was executed in Sharks Fin Bay and in the region between Maitiaguit and Batas Islands, on the coast of Linapacan Island, and the north coast of Culion. The entire region about the Calamianes and the island of Palawan is

filled with shoals and dangers to navigation, and hydrography requiring very close development is necessary. An automatic tide gauge was installed south of Batas Island, where observations were obtained during the year.

Marinduque.—Field work was done by this steamer on the east coast of Palawan, and topographic and hydrographic surveys were made. During the months of July and August the progress of the work was considerably delayed by stormy weather, and the work was transferred to the southern side of Dumaran Island. An automatic tide gauge was operated at Araceli.

Research.—This steamer was engaged in surveys of the northern part of Samar Sea, in the vicinity of San Bernardino Strait, and between the islands of Samar and Masbate.

A topographic survey of Destacado Island and the entire Naranjos group was finished, and also the east coast of Masbate and Port Cataingan to Black Rock Pass. The hydrographic work covered approximately that part of the Samar Sea lying between Dumurug Point, on the east coast of Masbate, and the outlying islands Tagapula and Capul and the southern part of Ticao Island.

Strong tidal currents prevailed in San Bernardino Strait. An automatic tide gauge was in operation at Mauo River and also at Naro Bay. The steamer investigated the report of an uncharted shoal at Port Laguimanoc.

BUREAU OF LABOR.

DIRECTOR OF LABOR, MANUEL TINIO; ASSISTANT DIRECTOR OF LABOR, BERNARDINO G. MONREAL; JULY 1, 1913–DECEMBER 31, 1913.

Officers and employees of the bureau at the close of the year.

	Americans, 1914.	Filipinos, 1914.	Total, 1914.	Total, 1913.
Directors.....		1	1	1
Assistant directors.....		1	1	1
Chief clerk.....		1	1	1
Chiefs of division.....		1	1	1
Clerks.....		20	20	19
Messengers.....		5	5	5
Chauffeurs.....		1	1	

CHANGES IN PERSONNEL.

Appointments:				
Classified service.....		1	1	
Unclassified service.....		11	11	13
Reinstatements.....		1	1	
Removals:				
Classified service.....				
Unclassified service.....				3
Resignations (voluntary):				
Classified service.....		2	2	1
Unclassified service.....		7	7	8
Resignations due to economy:				
Classified service.....				
Unclassified service.....				
Transfers:				
To bureau.....		1	1	1
From bureau.....		2	2	
Deaths.....		1	1	

Statement of number of American and Filipino officers and employees at the time of rendering reports submitted to show relative numbers of Americans and Filipinos employed.

Dates.	Americans.	Filipinos.	Total.	Salary expenditures.
June 30, 1910.....		17	17	P 16,374.24
June 30, 1911.....		22	22	25,406.50
June 30, 1912.....		26	26	28,778.68
June 30, 1913.....		28	28	29,224.00
Dec. 31, 1913.....		30	30	16,684.05

FORCE AND ORGANIZATION.

The following is a comparative statement showing the force of this bureau during the last two fiscal years:

Divisions.	1913		1914	
	Officers and clerks.	Messengers.	Officers and clerks.	Messengers.
Central office.....	11	1	14	1
Manila free employment agency.....	2	1	2	1
Cebu free employment agency.....	4	1	3	1
Iloilo free employment agency.....	3	1	3	1
Ilo cos Sur free employment agency.....	3	1	3	1
Total.....	23	5	25	5

FREE EMPLOYMENT AGENCIES.

The following statement shows the operation of the four free employment agencies of the bureau during the first semester of the fiscal year 1914 (July 1 to December 31, 1913) as compared with the last semester of the fiscal year 1913 (January 1 to June 30, 1913):

Free employment agencies.	Second semester of the fiscal year 1913.			First semester of the fiscal year 1914.		
	Laborers registered.	Laborers placed.	Percentage placed.	Laborers registered.	Laborers placed.	Percentage placed.
Manila.....	1,119	529	47.09	1,352	766	56.66
Cebu.....	3,592	3,245	90.33	1,190	1,026	86.22
Iloilo.....	1,528	1,332	87.17	841	678	80.62
Iloocos Sur.....	245	192	78.36	154	111	72.06
Total.....	6,484	5,298	81.71	3,537	2,581	72.97

The following is a statement of the number of emigrants sent out by the four agencies during the first semester of the fiscal year 1914, as compared with the number of those who have been sent out during the second semester of the fiscal year 1913:

Agencies.	Last semester of fiscal year 1913 (Jan. 1 to June 30, 1913).	First semester of fiscal year 1914 (July 1 to Dec. 31, 1913).	Increase.	Decrease.
			<i>Per cent.</i>	<i>Per cent.</i>
Manila.....	158	169	6.96	
Cebu.....	2,957	863		70.81
Iloilo.....	1,173	365		68.86
Ilocos Sur.....	449	283		36.97
Total.....	4,737	1,680		64.53

LABOR ACCIDENTS.

The following table shows the number of labor accidents which have been investigated by the bureau during the semester of from July to December, 1913:

Number of accidents.....	89
Victims.....	102
Deaths.....	22
Permanent disability.....	7
Temporary disability.....	71
Result doubtful.....	2

CLAIMS.

During the period of from July 1 to December 31, 1913, 324 claims from complainants of different professions were submitted to the bureau. These claims amounted to ₱7,645.39, of which amount ₱1,349.41 was recovered through conciliatory arrangements made by this bureau, while ₱1,037.16 could not be recovered and the amount of ₱5,258.82 is still pending.

STRIKES.

From July 1 to December 31, 1913, this bureau attended to six strikes which took place in Manila and in the provinces. A description of the strikes follows:

First.—On August 9, 1913, 29 operators employed in the central office of the Manila Telephone & Telegraph Co. struck for an increase in wages. Settlement is still pending.

Second.—On August 29, 1913, 300 of the laborers in the La Prueba Tobacco Factory struck, owing to a disagreement as to the prices to be paid for filling a certain cigar order. The laborers returned to work at the end of five days.

Third.—On September 22, 1913, 190 laborers employed in La Flor de Intal Tobacco Factory struck because the manager arbitrarily reduced the prices paid for fabricating a certain class of cigars, claiming that he had to sell them at a lower price. The strike lasted 11 days, at the end of which time the laborers returned to work.

Fourth.—On November 11, 1913, 38 laborers of the General Philippine Tobacco Co., Carlatan, La Union, went on a strike, alleging various grievances. These were all temporary employees, and returned to work after being out 11 days.

Fifth.—On November 11, 1913, a large number of stevedores at Aparri struck, claiming that the enforcement of order No. 22 of the board of rate regulation worked a hardship. The stevedores returned to work on the understanding that their complaint would be investigated. The settlement of this matter is now pending.

Sixth.—On November 19, 1913, 19 cigarette-machine tenders employed in La Grandeza Cigarette Factory struck for a raise in wages of 5 centavos per day and for shorter hours. The increase was granted them and they returned to work, the matter of shorter hours being left for adjustment later.

In conclusion: Of the six strikes, two are still unsettled, the papers connected therewith being in the hands of the government. These two strikes are those involving the telephone company and the port of Aparri. The strikes involving La Prueba and La Flor de Intal in Manila and the Compañía General de Tabacos de Filipinas at Carlatan have been settled in favor of the employers, and the one involving La Grandeza cigar factory is the only one which has been settled in favor of the strikers.

OFFICE OF THE SUPERVISING RAILWAY EXPERT.

SUPERVISING RAILWAY EXPERT L. F. GOODALE, JULY 1, 1913—
DECEMBER 31, 1913.

Officers and employees at the close of the year.

Class.	Americans, 1913.	Filipinos, 1913.	Total, 1913.	Total, 1912.
Supervising railway expert.....	1	.....	1	1
Stenographer.....	1	.....	1	1
Engineers.....	2	.....	2	2
Messenger.....	.....	1	1	1

CHANGES IN PERSONNEL.

No changes were made.

Statement of number of American and Filipino officers and employees at the time of rendering reports submitted to show relative numbers of Americans and Filipinos employed.

Dates.	Americans.	Filipinos.	Total.	Salary expenditure
June 30, 1906 ¹	1	.....	1	\$14,000.00
June 30, 1907.....	6	4	10	51,710.00
June 30, 1908.....	6	1	7	50,700.00
June 30, 1909.....	4	1	5	39,310.00
June 30, 1910.....	4	1	5	40,360.00
June 30, 1911.....	4	1	5	40,360.00
June 30, 1912.....	4	1	5	28,360.00
June 30, 1913.....	4	1	5	28,360.00
Dec. 31, 1913.....	4	1	5	16,613.33

¹ One employee in the States; office not as yet organized.

² This covered the salary of the supervising railway expert only, his assistants and staff being paid from the appropriation of the bureau of public works.

LEGISLATIVE OR ADMINISTRATIVE ACTS AFFECTING RAILROADS.

MANILA RAILROAD CO.

On August 30, 1913, the gold-fund contract was modified in some particulars, among which was the extension of the time for the completion of the Baguio line on June 1, 1915, instead of August 1, 1914.

TARLAC RAILWAY CO.

On April 21, 1913, the Governor General, by letter to the president of the above company, declared the franchise granted by the Philippine Commission to said company by Act No. 1448 forfeited.

The Philippine Commission, by Act No. 2282 of September 1, 1913, granted a franchise to Herbert C. Heald to construct, maintain, and operate, by steam or other power, from kilometer 24 on the Benguet Road to the city of Baguio, an aerial cableway. No work had been done on this line to the end of the old fiscal year 1914.

CONSTRUCTION AND OPERATION OF RAILROAD LINES.

Progress of construction, results of operation, and statistics in relation to railroads of the Philippine Islands on December 31, 1913, are given below:

MANILA RAILROAD CO.

Construction.

	Kilometers.
Graded during the year.....	56.5
Track laid during the year.....	32
Put in operation during the year.....	11.6
In operation in 1912.....	715
In operation December 31, 1913.....	773.2

NOTE.—No details for sidings. Gauge of track 1.07 meters.

Operating revenues.

Items.	1912	1913	Increase (+) or decrease (—).
Revenue from transportation:			
Freight service.....	P1,258,546.64	P1,720,977.07	+ P462,430.43
Passenger service.....	3,072,011.69	3,459,500.50	+ 387,488.81
Switching service.....	8,461.19	19,376.06	+ 10,914.87
Special train service.....	4,589.36	4,105.42	— 483.94
Total.....	4,343,608.88	5,203,959.05	+ 860,350.17
Revenue from operation other than transportation:			
Station and train privileges.....	6,448.59	7,436.08	+ 987.49
Storage of freight and baggage.....	3,901.30	2,786.72	— 1,114.58
Car service.....	455.42	7,232.49	+ 6,777.07
Rent of buildings and other property.....	6,408.87	9,634.39	+ 3,225.52
Miscellaneous.....	6,152.32	4,116.11	— 2,036.21
Total.....	23,366.50	31,205.79	+ 7,839.29
Joint facilities revenue, credit: Joint facilities of southern lines in connection with northern lines.....	1,238.23	1,322.93	+ 84.70
Total operating revenues.....	4,368,213.61	5,236,487.77	+ 868,274.16

Operating expenses.

Items.	1912	1913	Increase (+) or decrease (-).
Maintenance of way and structures.....	P590,979.84	P673,917.75	+ P82,937.91
Maintenance of equipment.....	288,599.49	384,802.90	+ 96,203.41
Traffic expenses.....	42,676.40	48,840.69	+ 6,164.29
Transportation expenses.....	927,603.24	1,257,551.96	+ 329,948.72
General expenses.....	208,918.50	241,958.75	+ 33,040.25
Total.....	2,058,777.47	2,607,072.05	+ 548,294.58

Income account.

Total operating revenues.....	P4,368,213.61	P5,236,487.77	+ P868,274.16
Total operating expenses.....	2,058,777.47	2,607,072.05	+ 548,294.58
Net operating revenues.....	2,309,436.14	2,629,415.72	+ 319,979.58
Taxes.....	45,737.38	45,118.71	- 618.67
Operating income.....	2,263,698.76	2,584,297.01	+ 320,598.25
Other income:			
Hire of equipment.....	195.00	1,991.12	+ 1,796.12
Interest accrued on funded debt owned.....		52,029.30	+ 52,029.30
Interest on securities, loans, and accounts.....	596,086.10	250,858.82	- 345,227.28
Miscellaneous income.....	8,044.42	20,109.54	+ 12,065.12
Total.....	604,325.52	324,988.78	- 279,336.74
Gross income.....	2,868,024.28	2,909,285.79	+ 41,261.51
Deductions from gross income:			
Rent by southern lines of joint facilities.....	45,951.15	56,400.67	+ 10,449.52
Interest on funded debt.....	2,007,338.80	2,115,876.01	+ 108,537.21
Other interest.....	383,229.76	126,568.69	- 256,661.07
Other deductions.....		43,115.76	+ 43,115.76
Total deductions.....	2,439,519.71	2,341,961.13	- 97,558.58
Net corporate income.....	428,504.57	567,324.66	+ 138,820.09
Percentage of operating expenses to operating revenues.....	47.1	49.7	+ 2.6

Equipment owned.

Locomotives.....	90	100	+ 10
Cars in passenger service:			
First class.....	10	.....	- 10
First and second class combination.....	39	45	+ 6
First and second class and baggage.....	.....	18	+ 18
Second class.....	10	.....	- 10
Third class.....	104	112	+ 8
Baggage, express, and postal.....	38	38	.....
Other.....	17	17	.....
Parlor.....	1	1	.....
Total.....	219	231	+ 12
Cars in freight service:			
Box.....	924	943	+ 19
Flat.....	95	202	+107
Stock.....	53	53	.....
Coal.....	56	67	+ 11
Refrigerator.....	11	11	.....
Tank.....	1	2	+ 1
Other.....	77	140	+ 63
Total.....	1,217	1,418	+201
Cars in company's service:			
Officers and pay.....	5	(1)	.....
Gravel.....	199	.....	.....
Derrick.....	20	.....	.....
Caboose.....	14	.....	.....
Other.....	16	.....	.....
Total.....	254	.....	.....
Total cars owned.....	1,690	1,771	+ 81

¹ Report incorrect.

ACCIDENTS.

No train accidents of consequence were reported.

The reports show 18 persons killed and 25 injured during the present year. Of the killed 5 were employees, 12 were trespassers, and 1 killed at a highway crossing; of the injured 18 were employees, 1 a passenger, and 6 trespassers.

PHILIPPINE RAILWAY COMPANY.

Operation.

Gauge of track, 1.07 meters (3 feet 6 inches).

The operating results for the calendar years 1912 and 1913 were as follows:

Length of lines.

Territory covered.	Kilometers, December 31—					
	1912.			1913.		
	Main line.	Sidings.	Total.	Main line.	Sidings.	Total.
Panay-Iloilo to Capiz.....	116.40	2.34	118.74	116.40	1.78	118.18
Cebu-Danao to Argao.....	95.60	3.23	98.83	95.60	2.80	98.40
Total.....	212	5.57	217.57	212	4.58	216.58

Operating revenues.

Items.	Calendar year 1912.	Calendar year 1913.	Increase (+) or decrease (-).
Revenue from transportation:			
Freight service.....	P183,382.09	P180,883.67	- P2,498.42
Passenger service.....	440,453.34	430,517.34	- 9,936.00
Switching revenue.....	3,139.50	10,239.00	+ 7,099.50
Total.....	626,974.93	621,640.01	- 5,334.92
Revenue from operations other than transportation:			
Station and train privileges.....		72.00	+ 72.00
Storage, freight.....		201.81	+ 201.81
Storage, baggage.....		.75	+ .75
Rent of buildings and other property.....	3,209.53	5,226.80	+ 2,017.27
Miscellaneous.....	122,539.45	14,034.07	- 108,504.38
Total.....	126,048.98	19,535.43	- 106,513.55
Total operating revenues.....	753,023.91	641,175.44	- 111,848.47

Operating expenses.

Maintenance of way and structures.....	P156,759.31	P169,355.20	+ P12,595.89
Maintenance of equipment.....	181,602.47	103,605.37	- 77,997.10
Traffic expenses.....	30,199.90	28,128.52	- 2,071.38
Transportation expenses.....	223,603.97	221,305.30	- 2,298.67
General expenses.....	62,633.95	54,586.53	- 8,047.42
Total.....	654,799.60	576,980.92	- 77,818.68

Income account.

Items.	Calendar year 1912.	Calendar year 1913.	Increase (+) or de- crease (-).
Total operating revenues	P 753,023.91	P 641,175.44	- P 111,848.47
Total operating expenses	654,799.60	576,960.92	- 77,818.68
Net operating revenues	98,224.31	64,194.52	- 34,029.79
Outside operation, net revenue	(1)	11,617.80	+ 11,617.80
Total net revenue	98,224.31	75,812.32	- 22,411.99
Taxes	3,765.28	3,491.42	- 273.86
Operating income	94,459.03	72,320.90	- 22,138.13
Other income	4,812.44	2,782.83	- 2,029.61
Gross income	99,271.47	75,103.73	- 24,167.74
Interest accrued on funded debt	670,153.34	681,098.66	+ 10,945.32
Other deductions		631.58	+ 631.58
Total deductions	670,153.34	681,730.24	+ 11,576.90
Net corporate loss	570,881.87	606,626.51	+ 35,744.64
Additions and betterments charged to income	35,569.32	6,445.56	- 29,123.76
Balance, debit to profit and loss	606,451.19	613,072.07	+ 6,620.88
Percentage of operating expenses to operating revenues	87.0	90.0	+ 3.0

¹ Included in operating revenues.*Equipment owned.*

Locomotives	15	15	.....
Cars in passenger service:			
Parlor and first-class combination	1	1	.....
First and second class combination	7	7	.....
Second class	12	12	.....
Third class	21	21	.....
Second class and baggage combination	6	6	.....
Baggage, express, and postal	1	1	.....
Other cars in passenger service	2	2	.....
Total	50	50	.....
Cars in freight service:			
Box	79	79	.....
Flat	46	45	-1
Stock	6	6	+1
Coal	5	4	-1
Other cars in freight service	58	57	-1
Total	193	191	-2
Cars in company's service:			
Derrick cars	2	2	.....
Other road cars	4	5	+1
Total	6	7	+1
Total cars in service	249	248	-1

One car lost in flood following a typhoon.

DAET TRAMWAY CO.

Operation.

Gauge of track, 0.91 meters (3 feet). Length of line, 7.24 kilometers.

Revenue from transportation.

Items.	1912	1913	Increase (+) or decrease (-).
Freight service revenue.....	(1)	P28,112.11	.....
Passenger service revenue.....	(1)	5,260.41	.....
Total revenue.....		33,372.52	.....

Operating expenses.

Maintenance of way and structures.....		P3,075.88	.....
Maintenance of equipment.....		2,391.48	.....
Traffic expenses.....		343.61	.....
Transportation expenses.....		7,686.90	.....
General expenses.....		5,408.90	.....
Total.....	(1)	18,906.77	.....
Net operating revenue.....	(1)	14,465.75	.....
Taxes.....	(1)	861.67	.....
Operating income.....	(1)	13,604.08	.....

Equipment owned.

Locomotives.....		None.	.....
Bulls.....		(1)	.....
Cars in passenger service.....		4	.....
Cars in freight service.....		12	.....
Cars in company's service.....		1	.....
Total cars owned.....	(2)	17	.....

¹ No report for calendar year 1912.

² None reported.

No accidents are reported.

MANILA ELECTRIC RAILROAD & LIGHT CO. AND MANILA SUBURBAN RAILWAYS CO.

Electric lines. Gauge of track, 1.44 meters (4 feet 8½ inches).

Construction.

During the calendar year 1913, 2.85 kilometers of main track and 2.11 kilometers of second track and sidings were added to the property of the Manila Electric Railroad & Light Co. No other construction work was done on either line.

Revenue from operation.

Items.	1912	1913	Increase (+) or decrease (-).
Revenue from transportation.....	₱1,315,064.74	₱1,425,882.08	+ ₱110,817.34
Station and car privileges.....	12,490.20	16,110.55	+ 3,620.35
Rent of tracks, terminals, buildings, and other property.....	4,109.00	1,820.20	- 2,288.80
Sale of power.....	269,001.26	318,698.30	+ 49,697.04
Sale of light.....	1,232,534.19	1,229,969.80	- 2,564.39
Miscellaneous.....	13,562.83	1,682.11	- 11,880.72
Total operating revenues.....	2,846,762.22	2,994,163.04	+ 147,400.82

Operating expenses.

Maintenance of way and structures.....	₱208,021.63	₱177,151.30	- ₱30,870.33
Maintenance of equipment.....	122,741.70	125,836.05	+ 3,094.35
Traffic expenses.....	9,072.93	11,787.19	+ 2,714.26
Transportation expenses.....	508,259.11	581,659.85	+ 73,400.74
General and miscellaneous expenses.....	481,170.75	524,864.98	+ 43,694.23
Total operating expenses.....	1,329,266.12	1,421,299.37	+ 92,033.25

Income account.

Total operating revenues.....	₱2,846,762.22	₱2,994,163.04	+ ₱147,400.82
Total operating expenses.....	1,329,266.12	1,421,299.37	+ 92,033.25
Net operating revenue.....	1,517,496.10	1,572,863.67	+ 55,367.57
Miscellaneous income: Interest on deposits and on securities owned.....		18,830.31	+ 18,830.31
Gross income less operating expenses.....	1,517,496.10	1,591,693.98	+ 74,177.78
Deductions from income:			
Taxes.....	96,034.34	97,834.22	+ 1,799.88
Interest on funded debt.....	(1)	360,000.00	.....
Interest on floating debt.....	(1)	120,000.00	.....
Total deductions.....		577,834.22	.....
Net income.....		1,013,859.76	.....
Disposition of net income:			
Reserve for replacements and renewals.....	(1)	147,199.92	.....
Dividends on common stock.....	(1)	700,000.00	.....
Total.....		847,199.92	.....
Surplus for year.....		766,659.84	.....
Percentage of operating expenses to operating revenues, railroad only.....	59.0	47.5	- 11.5

Equipment owned.

Passenger cars.....	114	116	+2
Freight cars.....	1	1	.....
Work cars.....	1	1	.....
Sprinkler cars.....	1	1	.....
Total cars.....	117	119	+2

¹ No report for calendar year 1912.

Report shows 10 persons killed and 672 injured in the operation of the line during the calendar year 1913.

Track has been maintained in fair condition.

MANILA SUBURBAN RAILWAYS CO.

Revenues from operation.

Items.	Calendar year 1912.	Calendar year 1913.	Increase (+) or decrease (-).
Revenue from transportation.....	P269,302.48	P257,452.595	- P11,849.885
Revenue from sale of power.....	552.40	2,991.78	+ 2,439.38
Revenue from sale of light.....	59,086.47	61,094.84	+ 2,008.37
Miscellaneous.....	3,963.88	250.13	- 3,713.75
Total operating revenues.....	332,905.23	321,789.345	- 11,115.885

Operating expenses.

Maintenance of way and structures.....	P15,332.71	P6,802.33	- P8,530.38
Maintenance of equipment.....	5,162.65	4,757.55	- 405.10
Traffic expenses.....	.....	.....	.....
Transportation expenses.....	94,528.21	94,476.34	- 51.87
General and miscellaneous expenses.....	15,460.40	18,435.32	+ 2,974.92
Total operating expenses.....	130,483.97	124,471.54	- 6,012.43

Income account.

Total operating revenues.....	P332,905.23	P321,789.345	- P11,115.885
Total operating expenses.....	130,483.97	124,471.54	- 6,012.43
Net operating revenue.....	202,421.26	197,317.805	- 5,103.455
Miscellaneous income: Interest on deposits.....	.....	3,858.87	+ 3,858.87
Gross income less operating expenses.....	202,421.26	201,176.675	- 1,244.585
Deductions from income:			
Taxes.....	9,298.23	9,086.72	- 211.51
Interest on funded debt.....	(1)	65,000.00	.....
Interest on sinking fund.....	(1)	6,500.00	.....
Total deductions.....	.....	80,586.72	.....
Net income.....	.....	120,589.955	.....
Disposition of net income:			
Reserve for replacements and renewals.....	(1)	12,799.92	.....
Dividends on common stock.....	(1)	106,000.00	.....
Total.....	.....	118,799.92	.....
Surplus for year.....	.....	1,790.035	.....
Percentage of operating expenses to operating revenue— railway only.....	39.4	14.8	- 24.6

Equipment owned.

Passenger cars.....	6	6	.....
Freight cars.....	7	7	.....
Total cars.....	13	13	.....

¹ No report for calendar year 1912.

Report shows no persons killed with 20 injured during the calendar year 1913 in the operation of the line.

Line has been maintained in good condition.

Summary of grading, tracklaying, and of lines put in operation on all lines during the half year.

Roads.	Kilometers.		
	Grading completed.	Track laid.	Lines opened.
Manila R. R. Co.....	56.5	32.0	11.6
Philippine Ry. Co.....			
Manila Electric R. R. & Light Co.....	2.9	2.9	2.9
Manila Suburban Rys. Co.....			
Dact Tramway Co.....			
Cebu Electric Line.....			
Total.....	59.4	34.9	14.5

The financial operations of this office for the half year were as follows:

Financial statement.

RESOURCES.

Principal account surplus.....	₱3,895.59
Allotment fiscal year 1914.....	₱20,000.00
Less reversions.....	3,493.38
	16,506.62
Total available.....	20,402.21

EXPENDITURES.

Maintenance of furniture and fixtures.....	16.58
Administration:	
Salaries and wages.....	15,567.78
Expenses of personnel.....	665.04
Office expenses.....	1,246.62
Incidental expenses.....	7,031.12
	24,510.56
Prior fiscal year.....	5,829.71
Total expense of operation.....	30,340.27
Income:	
Receipts from operation.....	14,150.14
Prior year income.....	274.49
	13,875.65
Net cost of operation.....	16,481.20
Capital expenditures, furniture and fixtures.....	25.42
Total net expenditures.....	16,506.62
Balance reverting to the treasury.....	3,895.59

OFFICE OF THE CONSULTING ARCHITECT.

CONSULTING ARCHITECT, WILLIAM E. PARSONS.

WORK PERFORMED.

During the period from July 1, 1913, to December 31, 1913, 122 projects, which, if completed, will cost approximately ₱9,556,529.51, have been handled by this office.

Plans for 26 of these projects, amounting in value to ₱736,176.74, were prepared and finished during the fiscal half year, and plans for 95, amounting to ₱8,820,352.77, were in course of preparation or under consideration.

A comprehensive plan for the improvement of Manila, based on the Burnham plan but revised and adjusted to actual conditions, has been prepared. It is intended that this plan should serve as a guide for improvements and for street and park extensions as needs may require and as funds become available.

Plans for the extension and beautification of San Pablo and Laguna and for the development of the portion of Iloilo between the custom-house and Iloilo Straits have been completed.

The work of this period also includes planting schemes for the provincial parks at Cabanatuan and Iloilo. Preliminary plans for the capitol have been brought to completion. A model of the entire group, with adjacent streets and parks, at the scale of 1-500, has been executed.

The expense of the office during the half year was as follows:

Salaries (including that of consulting architect)-----	₱40,167.26
Transportation, per diems, subsistence, etc-----	375.48
Office expenses, rental of office, furniture, stationery, etc-----	4,187.98
Total-----	44,930.72

PERSONNEL.

Officers and employees of the consulting architect's office at the close of the year 1913.

Class.	Americans, 1913.	Filipinos, 1913.	Total, 1913.	Total, 1912.
Consulting architect.....	1		1	1
Assistant architect.....	1		1	1
Chief draftsman.....	1		1	1
Architectural draftsmen.....	2	5	7	8
Chief clerk.....	1		1	1
Junior draftsmen.....		8	8	11
Estimator.....	1		1	2
Specification writer.....	1		1	1
Stenographer.....	1		1	1
Messengers.....		4	4	3
Clerk.....				1
Total.....	9	17	26	31

Changes in personnel, July 1 to Dec. 31, 1913.

Appointments.....		1	1	6
Reinstatements.....				
Removals.....				4
Resignations.....	3	1	4	1
Transfers:				
To office.....				1
From office.....		1	1	
Deaths.....		1	1	

CORPORATIONS.

The following table shows the number of licenses issued to foreign corporations and the number of articles of incorporation and other documents filed by the division of archives, patents, copyrights, and

trade-marks of the executive bureau for the six months ending December 31, 1913:

Licenses issued to foreign corporations.....	8
Articles of incorporation of domestic stock corporations.....	49
Articles of incorporation of domestic nonstock corporations.....	11
Articles of incorporation of religious corporations.....	1
Amendments to articles of incorporation.....	6
Changes of names of corporations.....	3
Certificates of increase of capital stock.....	7
Letters of appointment.....	1
By-laws.....	47
Amended by-laws.....	5

The total amount of fees collected for the issuance of licenses and the filing of documents was ₱4,602.

IRRIGATION COUNCIL.

The irrigation council created by Act No. 2152 held five meetings during the latter half of 1913 to consider applications for water rights. The work of the council is shown as follows:

Applications brought before the council.....	14
Applications approved.....	7
Applications rejected.....	0
Applications pending further action.....	7

Respectfully submitted.

JAIME C. DE VEYRA,
Acting Secretary of Commerce and Police.

To the PHILIPPINE COMMISSION.

REPORT OF THE SECRETARY OF COMMERCE AND POLICE.

FISCAL YEAR ENDING DECEMBER 31, 1914.

DEPARTMENT OF COMMERCE AND POLICE,
Manila, March 30, 1915.

GENTLEMEN: There is submitted herewith the report of the department of commerce and police for the fiscal year beginning January 1 and ending December 31, 1914.

The undersigned assumed the duties of secretary of department on the 23d day of February, 1914, relieving the Hon. Jaime C. de Veyra, who had been acting secretary of commerce and police since the 29th day of November, 1913.

On the 16th of January, 1914, by Act No. 2314 the office of consulting architect was transferred to the bureau of public works, and the consulting architect under the provisions of this act performs the duties of his office as an officer of the bureau of public works instead of a bureau chief as formerly.

On the 31st of January, 1914, by Act No. 2320 the office of supervising railway expert was abolished and the duties of that office were transferred to the board of public utility commissioners.

The bureaus of this department at present are the constabulary, public works, posts, coast and geodetic survey, and labor.

BUREAU OF CONSTABULARY.

Chief of constabulary: Brig. Gen. WILLIAM C. RIVERS, January 1, 1914, to March 31, 1914; Brig. Gen. HERMAN H. HALL, April 1, 1914, to June 26, 1914.

Acting chief of constabulary: Col. WALLACE C. TAYLOR, June 27, 1914, to December 31, 1914.

Officers and employees of the bureau at the close of the year, Dec. 31, 1914.

	Americans, 1914.	Filipinos, 1914.	Total, 1914.	Total, 1913.
Chief of constabulary.....	1	.....	1	1
Assistant chiefs of constabulary.....	9	1	10	10
Assistant to chief.....	.....	.....	.....	1
Inspector of constabulary.....	1	.....	1	1
Officers.....	230	87	317	335
Clerks.....	8	60	68	63
Messengers.....	.....	7	7	7
Stenographers.....	5	2	7	7
Translators.....	1	1	2	2
Agents.....	.....	29	29	19
Miscellaneous.....	4	3	7	20

Changes in personnel, excluding officers and enlisted men.

	Americans, 1914.	Filipinos, 1914.	Total, 1914.	Total, 1913.
Appointments.....	21	66	87	71
Reinstatements.....	5	.....	5	3
Removals.....	2	4	6	6
Resignations.....	38	31	69	58
Transfers:				
To bureau.....	1	2	3	3
From bureau.....	.....	2	2	2
Deaths.....	3	.....	3	6

Statement of number of American and Filipino officers and employees at the time of rendering reports submitted to show relative numbers of Americans and Filipinos employed, excluding enlisted men.

	Americans.	Filipinos.	Total.	Salary ex- penditures.
June 30, 1905.....	269	259	528	(1)
June 30, 1906.....	306	221	527	(1)
June 30, 1907.....	286	107	392	(1)
June 30, 1908.....	285	125	410	(1)
June 30, 1909.....	286	105	391	(1)
June 30, 1910.....	285	113	397	₱ 1,135,715.83
June 30, 1911.....	295	93	388	1,142,610.05
June 30, 1912.....	298	104	402	1,163,327.86
June 30, 1913.....	291	121	412	1,187,160.38
Dec. 31, 1913.....	319	146	465	680,118.76
Dec. 31, 1914.....	258	190	448	1,302,275.84

¹ Figures for these years are not available.

Actual strength of enlisted force, Dec. 31, 1914.

	Officers.	Enlisted men.
Headquarters.....	9	18
Medical division.....	1	.....
District of Northern Luzon.....	42	710
Medical division.....	3	14
District of Central Luzon.....	56	1,084
Medical division.....	2	20
District of Southern Luzon.....	34	633
Medical division.....	2	14
District of Visayas.....	41	830
Medical division.....	2	16
District of Mindanao.....	60	1,127
Medical division.....	5	18
Santa Lucia Barracks.....	1	.....
Medical division.....	.....	4
General Service, Philippine Constabulary.....	7	131
Constabulary band.....	1	80
Constabulary academy.....	34	11
Medical division.....	2	.....
Constabulary of Palawan.....	2	56
Medical division.....	.....	2
Absent with leave.....	20	.....
On detached service from bureau.....	3	.....
Total.....	327	4,768

Report of the medical division, authorized strength 19 officers and 100 enlisted men.

Constabulary cases treated in hospital.....	932
Constabulary cases treated in quarters.....	3,075
Miscellaneous cases other than constabulary.....	3,594
Members of constabulary treated by other than constabulary medical officers.....	160
Days lost in hospital.....	13,512
Days lost in quarters.....	21,523

Malaria is responsible for the greatest number of cases, while wounds are next.

Statement of accounts, 1914.

DEBIT.

To appropriation act 2319:		
Salaries and wages.....	₱2, 254, 810. 22	
Contingent expenses.....	1 259, 333. 43	
		₱3, 514, 143. 65
To unexpended balance of appropriation in act No. 2289.....		96, 075. 00
To act No. 2366 (abolishing commissaries).....		3, 589. 26
Receipts from operation.....	10, 705. 50	
Receipts from sales of commissaries.....	449. 27	
		11, 154. 77
Receipts from sales of fixed assets.....		24, 710. 97
Total		3, 649, 673. 65

CREDIT.

Total expenditure	3, 592, 340. 24
Reversions to general fund.....	35, 865. 74
Unexpended balance.....	21, 467. 67
Total	3, 649, 673. 65

Statement of assets and liabilities.

ASSETS.

Real estate (land).....		₱95, 645. 65
Plant and equipment:		
Buildings and structures.....	₱535, 223. 29	
Water transportation.....	72, 603. 47	
Land transportation.....	115, 995. 37	
Ordnance and ordnance stores.....	460, 964. 34	
Portable machinery and implements.....	17, 116. 66	
Furniture and fixtures.....	346, 175. 12	
Miscellaneous equipment.....	50, 404. 37	
		1, 598, 482. 62
Prepayments		5, 685. 68
Accounts receivable	10, 784. 93	
Insurance claims.....	2, 500. 48	
		13, 285. 41
Cash:		
Insular treasury	68 632. 66	
Collection and disbursing officers.....	296, 089. 62	
		364, 722. 28
Total		2, 077, 821. 64

LIABILITIES.

Accounts payable.....	362, 225. 70
Bond fund, act No. 1954.....	100, 000. 00
Net worth.....	1, 615, 595. 94
Total	2, 077, 821. 64

Summary of licenses issued by the chief of constabulary under Act No. 1780, to possess or carry firearms to December 31, 1914.

	Rifles.	Revolvers.	Shot-guns.	Total.
Dec. 31, 1914.....	511	2, 268	4, 265	7, 044
Dec. 31, 1913.....	540	2, 238	4, 119	6, 897
Increase, 1914.....		30	146	176
Decrease, 1914.....	29			29
Net increase, 1914.....				147

Arms in hands of municipal police.

Owners.	Rifles.	Car-bines.	Revol-vers.	Shot-guns.	Total.
Municipalities, 1913.....	17	9	1,309	.....	1,335
Municipalities, 1914.....	.....	20	1,446	5	1,471
Increase, 1914.....	.....	11	137	5	153
Decrease, 1914.....	17	.....	.....	.....	17
Net increase, 1914.....	.....	.....	.....	.....	136

PEACE AND ORDER.

Conditions have been generally good. The American troops were withdrawn from Mindanao and Jolo in October, 1913, their responsibilities being assumed by the Philippine Constabulary. The wild tribes and the mountain people have occasioned no trouble of consequence, and ruptures in general peace have been confined to out-lawry among some Moros, the escape of prisoners from San Ramon Farm and the Iwahig Penal Colony, and the attempts of some of the more radical members of a revolutionary society, controlled by Artemio Ricarte, to establish a field force.

The Ricarte movement has been more or less active since 1911, its avowed purpose being to work for a government controlled by its own members and sympathizers. Its real purpose seems to be the collecting of funds.

In July, 1913, there was a small outbreak in San Marcelino, Zambales Province. This was participated in by 30 men under the leadership of Blas Sison and two priests of the independent church, commonly known as Aglipayanos, but the band was quickly broken up by officials and constabulary. In February, 1914, Aurelio Concepción was arrested in Taytay, about 30 miles from Manila, for selling Ricarte commissions and attempting to organize a field force.

Ricarte's Hongkong paper, "The Cry of the People," was excluded from the Philippine mails by the secretary of commerce and police in March, 1914, which resulted in cutting off the income of those followers who were soliciting contributions for revolutionary purposes under the guise of subscriptions to a newspaper. In July, 1914, Ricarte distributed printed copies of his constitution for the "Rizal Islands," thus indicating his aspirations not only to change the name, but to have his government supersede any that might be established here. Organizers from Manila circulated in the provinces of Rizal, Tarlac, Nueva Ecija, Tayabas, Iloilo, and Antique, selling commissions from lieutenant to colonel for from 50 centavos to 10 pesos each. Miguel Suba in Nueva Ecija, Leoncio Panganiban and Bernardino Bagay in Tayabas, Concordia Dalida in Iloilo, and Felix Vasquez in Antique were organizers arrested and sentenced to terms of imprisonment. Modesto Victorino, Ricarte's right-hand man in Manila, was arrested August 18 and taken to Tarlac for trial. He was sentenced to six years' imprisonment. Arrests have since been made of the organizers Daniel Cagado and Estanislao Ancero in Marapipi and Leyte islands. The arguments used to sell commissions were, in general, to the effect that this was the opportunity to get in on the ground floor so that when independence or an insurrection should come, the Ricarte army would be in control and the

class of people it represented would be in a position then to equalize the distribution of the wealth of the country.

The European war and the military exercises of the *Guías Nacionales*, the *Dimas-Alang*, and the Sailors' Union awakened the war spirit and furnished argument for the *Ricartistas* to unite the lower classes for their own benefit. The arrest of Modesto Victorino effectually broke up what was intended as a movement on the outskirts of Manila scheduled for August 26. When August 26 came around only two groups found courage to assemble, although it is known that quite a number of men left Manila in search of the rendezvous. One group of 12 was picked up by the constabulary at Balintawak, 10 miles north of Manila, and another of 30 was run into Bulacan Province, where it disbanded. Brigido Santiago, the leader of this field force, was captured and given a jail sentence. His immediate superior, Rufino Vicente, apparently lacked courage to take the field. He has since been captured. The prompt action of the constabulary in arresting and dispersing these agitators no doubt kept this movement from assuming more serious proportions.

The next event was similar to that of the Mandak uprising in 1910, in that its leader was at liberty on bond awaiting the confirmation of the supreme court of a sentence for manslaughter, and in his desperation to avoid imprisonment became overconfident of the forces and extent of the revolutionary spirit, which he felt himself fitted to lead. This was the Christmas eve attempt of Timoteo Cariaga. The streets of Manila were filled with companies of *Dimas-Alang* and National Guides, drilling in preparation for Rizal Day parade, and there were the usual number of Christmas eve gatherings. The group of eight men picked from the crowd in the Botanical Gardens and belonging to Cariaga's outfit were of the lowest type. Tomas Enrile, who was to work in conjunction with Cariaga, was satisfied to take possession of the municipal building at Navotas, 12 miles from Manila. His outfit was dispersed by the local police, while he was himself captured by the constabulary a few days later. The following arrests of organizers and leaders have been made since December 24: Rufino Vicente and Tallada, of Rizal Province; Ciriaca Geirosa and Moises Marca, of Laguna Province; Bernabe Bagsic, of Pampanga and Bulacan Provinces, and several minor agents.

In the provinces of Cebu and Pampanga attempts were made by certain religious fanatics to organize militant bands similar to those in past years, but they were quickly suppressed.

The increase in cost of living due to the war, the drought, and locust pest has not had an appreciable effect as to crime to date.

CONSTABULARY ACTIVITIES.

Aside from its usual duties in the matter of peace and order, the constabulary devoted a great deal of time to the campaign against locusts and to quarantine against cholera and rinderpest. The efficient services performed in this connection reflect great credit on the constabulary organization.

Two new stations were established in the interior of northern Luzon, one at Macabenga, to the east of Bayombong, and one at Cabugao, which is farther up the river from Tauit, in Apayao. These stations will more effectively control a people hitherto difficult to reach.

An appreciable falling off in the use of opium is recorded since the enactment of the law imposing a heavier penalty and providing for the deportation of recidivist Chinese. The price of opium has quadrupled in 12 months.

The constabulary was charged with enforcing the gambling law three years ago and a steady progress has been made against this evil.

HEALTH CONDITIONS.

The health of the constabulary has been excellent. There is considerable decrease in the number of sick treated in the hospitals and quarters this year as compared with last year. Malaria fever has been reduced in all the districts except the district of Mindanao. In the districts of southern Luzon and the Visayas the number of cases was reduced fully one-half. In the district of Mindanao the number of cases of malaria has increased four times the number reported last year, apparently due to the opening of new stations in that district. The number of cases of venereal diseases, dysentery, and beriberi has decreased from the number reported for the previous year. Tuberculosis has increased considerably, due perhaps to the strict medical inspection given the men.

The following is the hospital report:

Cases treated in hospitals.....	932
Cases treated in quarters.....	3, 075
Days lost in hospitals.....	13, 771
Days lost in quarters.....	21, 724
Deaths, officers.....	3
Deaths, enlisted men.....	29

Diseases causing the largest number of admissions to hospitals and quarters.

Malaria.....	1, 260	Dysentery.....	108
Wounds.....	201	Bronchitis.....	86
Venereal diseases.....	196	Dengue.....	84
Furunculosis.....	174	Diarrhea.....	72
Abscess.....	143	Tuberculosis.....	45
Indigestion.....	116		

In addition to the above cases treated by our medical officers there were 165 officers and enlisted men treated by other than constabulary medical officers. Against this, our medical officers have treated free of charge about 4,164 indigent patients and employees of other bureaus. These figures do not include the indigent patients treated by our medical officers who, in addition to their constabulary work, are in charge of dispensaries amongst the non-Christian tribes.

CONSTABULARY ACADEMY.

During the year there have been in the academy two classes of third lieutenants and one class of Filipino cadets. Provision has been made for a Filipino cadet class for 1915, to which will be admitted some of those who failed of appointment in 1914 and some noncommissioned officers, together with new nominees.

MUNICIPAL POLICE.

The undersigned desires to call attention to the fact that the inducements to enter the service and the guaranty of continuance are insufficient to attract a large number of applicants to the municipal

police force. Many municipalities are unable to fill the grade of patrolman with eligibles certified by the examining board. It is noted that in some instances municipal officials are disposed to appropriate more funds for a larger and more efficient police force, but such estimates have been refused approval by the provincial treasurers.

RECOMMENDATIONS.

The marksmanship of the constabulary is not up to the standard that could be reasonably expected in such an organization, and it is recommended that the Legislature appropriate additional funds for the purchase of ammunition for target practice.

In many of the provincial capitals the constabulary force is quartered in rented buildings in the main streets of the town. It seems desirable that grounds be obtained in the suburbs, and it is recommended that the Legislature give this matter consideration at its next session.

The constabulary is greatly in need of proper transportation facilities in the shape of motor boats, motorcycles, and automobiles. As this class of transportation has revolutionized the work of the military and police, it is believed that more ample provision should be made by the Legislature for the purchase of this class of equipment.

Following the precedent established by all civilized countries, which is believed to be the proper course, it is recommended that the attention of the Legislature be again called at its next session to the necessity for an adequate pension and retirement fund for the constabulary. Such a bill was proposed at the last session, but failed to receive approval. It is recommended that every effort be made to secure the passage of such a law at an early date.

BUREAU OF PUBLIC WORKS.

DIRECTOR OF PUBLIC WORKS, WARWICK GREENE.

Bureau officers and employees.

	Director.	Administrative officers.	In charge of organization units and in advisory capacity.	All other.	Total.
June 30, 1913:					
Americans.....	1	4	49	121	175
Filipinos.....			1	294	295
Total.....	1	4	50	415	470
Dec. 31, 1913:					
Americans.....	1	4	46	85	136
Filipinos.....			2	239	241
Total.....	1	4	48	324	377
Dec. 31, 1914:					
Americans.....	1	4	62	57	124
Filipinos.....			13	216	229
Total.....	1	4	75	273	353

Number of American and Filipino officers and employees.

Date.	Employed on date stated.			Total salaries.
	Americans.	Filipinos.	Total.	
June 30, 1913.....	175	295	470	₱466,773.24 (previous 6 months).
Dec. 31, 1913.....	136	241	377	388,770.52 (previous 6 months).
Dec. 31, 1914.....	124	229	353	759,139.85 (current year 1914).

Number of American and Filipino officers and employees.

Dates.	Americans.	Filipinos.	Total.	Salary expenditure for the year.
				<i>Pesos.</i>
June 30, 1905.....	44	26	70	(1)
June 30, 1906.....	80	51	131	(1)
June 30, 1907.....	98	83	181	(1)
June 30, 1908.....	144	109	253	(1)
June 30, 1909.....	247	251	498	(1)
June 30, 1910.....	260	306	566	(1)
June 30, 1911.....	354	372	726	(1)
June 30, 1912.....	244	327	571	(1)
June 30, 1913.....	175	295	470	(1)
Dec. 31, 1913.....	136	241	377	* 388,770.52
Dec. 31, 1914.....	124	229	353	* 759,139.85

¹ Data for these years not available.

² Six months.

³ Year.

From July 1, 1911, to December 31, 1913, a varying number of district officers and employees engaged on work supervised by the bureau were paid by the provinces. No account is taken of these men in the foregoing two tabulations.

CHANGES IN PERSONNEL.

The figures in the following tabulation include all officers and employees engaged upon work supervised by the bureau by whatever branch of the government paid. The years mentioned are calendar years:

	Americans, 1914.	Filipinos, 1914.	Total, 1914.	Total, 1913
Appointments.....	43	258	301	396
Reinstatements.....		5	5	5
Separations for cause.....	2	22	24	83
Voluntary resignation.....	36	139	175	377
Separations—economy.....	54	13	67	45
Transfers to bureau.....	24	12	36	8
Transfers from bureau.....	4	11	15	13
Deaths.....	2		2	5

ORGANIZATION DIAGRAM OF THE BUREAU OF PUBLIC WORKS

DECEMBER 31, 1914

DIRECTOR
OF PUBLIC WORKS

DIVISION OF ARCHITECTURE
Consulting Architect

DESIGNING DIVISION
Chief Designing Engineer

Water Rights

Water Supply, Irrigation and Other
Hydraulic Design

Design of Port and River
Control Works

Building, Bridge, Lighthouse, and
Other Structural Design

Drafting, Blue-print and Photo-
graphic Work

Planfile and Library

ADMINISTRATION DIVISION
Assistant to the Director

Accounts

Disbursements and Collections

Property

Records

Division of Automobiles and
Machinery

Registration and Regulation of
Motor Vehicle Traffic

CONSTRUCTING DIVISION
Chief Constructing Engineer

Road, Bridge, Building, Water Supply, Port Works, River Control, Lighthouse, and Other Construction and Maintenance

Engineering Districts,

Benguet Road,

Insular Building and Port Work,

Manila, Special Projects

Highway Specification and Practise

Benguet Automobile Line

Panay Automobile Line

GENERAL.

During the year the organization of the bureau of public works was simplified and its cost reduced. The consulting architect was placed under the director of public works by Act No. 2314 and port works transferred by Act No. 2308 from the old bureau of navigation to the bureau of public works, which was reorganized under four principal divisions, as follows:

(1) *Administrative*.—Assistant to the director in charge. General administration work of the bureau, including director's office, accounts, property, records, cashiers, etc.

(2) *Architectural*.—Consulting architect in charge. Architectural and structural design of all buildings, monuments, etc.

(3) *Design*.—Chief designing engineer in charge. All engineering and technical designing work of the bureau excepting buildings.

(4) *Constructing*.—Chief constructing engineer in charge. All construction work of the bureau and the administration of all the district engineers' offices. Chief constructing engineer also acts as principal assistant to the director in the general administration of the bureau.

In addition, preliminary steps toward extending the jurisdiction of the bureau over public works in Mindanao and Sulu were taken by sending bureau engineers to various public works positions in that department.

The appropriation act for 1914 contained the following provision:

All insular and provincial public works projects shall be carried out under the supervision of the bureau of public works unless otherwise directed by the secretary of commerce and police.

The general supervision over public works in the special provinces, thus given the bureau, has been exercised only in special cases during the past year. Under the law the supervision of the bureau is now extended over all public works in the islands except municipal public works in the city of Manila and in municipalities which do not make specific request of the bureau to take charge.

The new organization of the bureau has worked well, although the reduction of personnel has prevented the preparation of designs and plans and the carrying on of some administrative and construction work as rapidly as formerly. While the capacity of the bureau for turning out work is not as great as in former years, yet the efficiency per peso of expenditure is much greater.

Due to this policy of stringent economy and reduced insular appropriations for public works a considerable reduction in personnel was made. During the course of this reduction many valuable men were lost—men who had given the bureau long, efficient, and loyal service. At the same time advantage was taken of the situation to weed out many of the less efficient men. Hard times in the United States as well as in the Philippines also enabled the bureau to make some personnel adjustments on more favorable terms to the government than would have been possible in more prosperous times, although the administration and the Legislature followed the wise course of not reducing technical salaries. The engineers of the bureau have been treated very liberally, considering the general policy of the government. Reduced revenues on the part of the

insular government meant reduced expenditures, particularly for insular public works, and this involved reduced personnel for the bureau.

On the whole, the morale of the bureau of public works has not suffered much from a drastic reduction of its force. This reduction, with other related matters, has naturally caused great discontent in some quarters.

FILIPINIZATION.

The development of a Filipino technical personnel is proceeding as rapidly as circumstances will permit. At the end of the year six districts were in charge of Filipino engineers.

Systematic progress continues to be made in the development of Filipinos in the clerical positions, including stenographers, as well as in the foremen and skilled labor classes. The clerical force in all the district offices is now completely filipinized.

From present indications, the great impediment which well-ordered development of Philippine public works will in time come to face will be a dearth of Filipino civil engineers, resulting from the fact that comparatively few men are now preparing themselves for the profession. Compared with the number who are entering the other professions, such as law and medicine, the number is very small and will be entirely inadequate to supply the Filipino engineers that will be needed in the future.

It is believed that when a Filipino has qualified for a position formerly held by an American, his salary should be based not on what the American formerly received, but on what is a proper salary under the conditions prevailing in the Philippines. No question of the relative ability of the two is involved in this distinction; it is solely a question of economics. This is the policy laid down by former Gov. Gen. Smith, and it is believed to be entirely sound. As most of the employees, other than Filipinos, come from the United States, it is obligatory on the Philippines, economically a poor and undeveloped country, to pay salaries on the United States scale, which is the highest in the world. This is an artificial scale for the Philippines and only adopted because of necessity. It would be an economic crime to apply this very high scale to the remuneration of Filipino engineers or other Filipino employees. They should receive salaries proportionate to the economic conditions of the Philippines. Any other policy would be economically false and would be an injustice to the taxpayers.

SUMMARY OF WORK FOR THE YEAR.

Comparison of total expenditures supervised.

July 1, 1910-June 30, 1911.....	₱9,793,119.59
July 1, 1911-June 30, 1912.....	9,720,441.83
July 1, 1912-June 30, 1913.....	10,285,591.99
July 1, 1913-Dec. 31, 1913.....	5,407,466.45
Jan. 1, 1914-Dec. 31, 1914.....	9,894,293.00

During the year ₱9,894,293 were spent under the direction of the bureau of public works. Of this, ₱5,434,596.42 were from insular sources and ₱4,437,635.25 from provincial and municipal sources.

A comparison of this with expenditures in prior years is shown in the preceding table. The sum was spent as follows:

Construction and maintenance of roads and bridges.....	₱5, 652, 436. 94
Artesian wells.....	} 452, 013. 43
Waterworks.....	
Buildings.....	
Port works, construction and maintenance.....	2, 703, 485. 94
Miscellaneous.....	391, 533. 19
	694, 823. 50

MOTOR VEHICLES.

The motor vehicles in use in the Philippine Islands continued to be registered by the bureau. Summaries of such registration follow:

Registered during calendar year 1914.....	826
Registered prior to Dec. 31, 1913.....	2, 646
Total.....	3, 472
Automobiles and motor trucks, including all four-wheeled vehicles, e. g., ambulances, fire engines, delivery wagons, etc.....	2, 610
Motor cycles, including all motor vehicles of three wheels or less, e. g., package carriers, etc.....	862
Total.....	3, 472

WATER SUPPLY.

Artesian wells, deep wells completed by the bureau of public works, calendar year 1914.

	Number.	Total depths in meters.	Total in gallons per minute.	Total cost, including depreciation.
Successful:				
Flowing.....	42	4, 988	1, 496	₱86, 228. 75
Pumping.....	61	6, 937	2, 668	132, 038. 28
Total.....	103	11, 925	4, 164	218, 267. 03
Unsuccessful.....	17	3, 208	.....	66, 312. 45

Successful wells driven by provinces, calendar year 1914.

	Number.	Depths in meters.	Remarks.
Flowing.....	47	2, 832	} All of these wells were driven by jet-boring rigs.
Pumping.....	1	122	
Total.....	48	2, 954	

NOTE.—Total cost figures for these jet-rig wells are not given because accounts available to the bureau do not cover all wells drilled, and because such accounts as are available make no charge for a considerable amount of labor furnished voluntarily and no allowance for depreciation and cost of supervision.

Successful artesian wells in existence, 9½-year period.

June 30, 1905.....	2	June 30, 1911.....	526
June 30, 1906.....	5	June 30, 1912.....	673
June 30, 1907.....	54	June 30, 1913.....	818
June 30, 1908.....	68	December 31, 1913.....	902
June 30, 1909.....	151	December 31, 1914.....	1, 053
June 30, 1910.....	302		

MUNICIPAL WATER SUPPLY.

Projects completed in 1914 in addition to artesian wells.

Province.	Municipality.	Name of project.	Population supplied.	Cost.
Tayabas.....	Sariaya.....	Sariaya waterworks	4,160	P37,843.73
Tayabas.....	Boac, Marinduque.	Boac waterworks.....	4,000	6,618.70

WATER SUPPLY IN THE DEPARTMENT OF MINDANAO AND SULU.

Seven successful wells have been drilled in the period January 1 to December 31, 1914. In addition to these three other successful wells were driven prior to 1914. The wells are all in the province of Agusan and are included in the statistics above.

The principal other water-supply improvements in existence in the department on December 31, 1914, were as follows:

Zamboanga.—Open canal constructed by the Spanish administration.

Jolo.—Two systems exist—one constructed by the United States Army and consisting of a pumping plant and a 240,000-gallon tank, with a 6-inch connection to the walled city of Jolo, the other built by Spanish administration and comprising a small dam, a 4-inch pipe line, and a public fountain.

Siasi.—A gravity water system constructed by the United States Army and consisting of a small dam, a 2-inch pipe line, and four and five public fountains.

Parang, Cotabato.—A pumping plant connected to a steel tank supplies the municipality with house connections and hydrants. This work was constructed by the United States Army.

Camp Keithley.—United States Army pumping plant.

Camp Overton.—United States Army gravity water supply.

Isabela, Basilan.—A large lime-masonry reservoir fed by springs.

ROADS.

Length of road in existence and increase for 1914.

[Decreases are in brackets.]

	Kilometers of—				
	First-class road.	Second-class road.	Third-class road.	Total roads.	Trail.
Dec. 31, 1914.....	2,564.0	2,024.3	2,875.7	7,464.0	915.8
Dec. 31, 1913.....	2,233.8	2,024.6	3,138.7	7,397.1	378.4
Increase during 1914.....	330.2	[.3]	[263.0]	66.9	537.4

NOTE.—All figures include Benguet Road, City of Baguio, and Romblon, Masbate, and Abra Provinces. The 1914 figures also include the Provinces of Zamboanga, the portion of the Naguillian-Baguio road in the Mountain Province, and the Manila-North road in the Subprovince of Amburayan. In the Department of Mindanao and Sulu there are about 80 kilometers second class, 199 kilometers third, and 2,400 kilometers of trail. None of this is included in the above tabulation except the 54.4 kilometers of second class, 15 kilometers of third class, and 141.9 kilometers of trail in the Province of Zamboanga.

Relation of first-class road construction and maintenance.

Fiscal year ending—	Designated first-class road at end of year.	First-class road constructed during year.	Average maintained throughout the year by the Caminero system.
	<i>Kilometers.</i>	<i>Kilometers.</i>	<i>Kilometers.</i>
June 30, 1908.....	397.0	No data.	No data.
June 30, 1909.....	553.5	No data.	No data.
June 30, 1910.....	916.6	249.0	963.4
June 30, 1911.....	1,423.6	357.4	1,441.7
June 30, 1912.....	1,780.3	291.4	1,785.3
June 30, 1913.....	2,035.4	257.6	1,976.3
Dec. 31, 1913 (period of 6 months).....	2,171.6	136.5	2,146.3
Dec. 31, 1914.....	2,495.5	330.2	2,317.6

Road maintenance.

Calendar year.	Caminero system.		Gang system, excluding Benguet Road and department of Mindanao and Sulu.		Total maintenance, excluding Benguet Road and department of Mindanao and Sulu.	Total cost of road maintenance.
	Average maintained.	Total cost.	Main-tained.	Total cost.		
	<i>Kilometers.</i>	<i>Pesos.</i>	<i>Kilometers.</i>	<i>Pesos.</i>	<i>Kilometers.</i>	<i>Pesos.</i>
1914.....	2,317.6	1,098,082.54	2,418.8	398,655.30	4,736.4	1,496,737.84
1913.....	2,060.3	1,077,130.26	1,721.7	337,710.66	3,782.0	1,414,840.92
Increase during 1914...	257.3	20,952.28	697.1	60,944.64	954.4	81,896.92

Average cost of caminero system per kilometer, maintained 1 year.

Calendar year 1913.....	₱522.80
Calendar year 1914.....	473.80

Road-maintenance costs, 5½-year period.

Fiscal year ending—	Average cost per kilometer per year, excluding Benguet Road.		Total expended on road maintenance under bureau of public works supervision including Benguet Road, but excluding Mindanao and Sulu.
	Caminero system.	Gang system.	
June 30, 1910.....	₱570.02	(1)	(2)
June 30, 1911.....	492.02	₱112.87	₱1,119,703.53
June 30, 1912.....	463.20	143.00	1,415,150.53
June 30, 1913.....	555.00	127.53	1,579,104.52
Dec. 31, 1913 (6 months only).....	251.39	100.45	899,981.26
Dec. 31, 1914.....	473.80	164.82	1,548,573.85

¹ No data.² Incomplete data.

MAINTENANCE OF ROADS AND TRAILS, DEPARTMENT OF MINDANAO AND SULU.

The charges to maintenance of roads, bridges, and trails for 1914 totaled ₱66,751.67 for five of the seven Provinces. Figures for Agusan and Bukidnon are not available.

BRIDGES.

Durable bridges and culverts in existence and increase for 1914.

Year ending—	All durable structures.	
	Total number.	Total meter span.
Dec. 31, 1914.....	6,206	23,973.12
Dec. 31, 1913.....	5,901	21,034.60
Increase during 1914.....	305	2,938.52

NOTE.—All figures include Benguet Road and city of Baguio, also Romblon, Abra, and Masbate. The 1914 figures also include the Provinces of Zamboanga and Lanao, the portion of the Naguillian-Baguio Road in the Mountain Province, and the Manila-North Road in the sub-Province of Tagudin.

Reinforced-concrete structures in existence.

Fiscal year ending—	Total number.	Total meter span.
June 30, 1911.....	2,004	7,709.09
June 30, 1912.....	2,350	9,215.69
June 30, 1913.....	2,854	11,223.74
Dec. 31, 1913.....	3,046	11,984.46
Dec. 31, 1914.....	3,247	13,071.04

NOTE.—The term "Durable bridges and culverts" includes structures of reinforced concrete, steel, brick, and all substantial stone structures, whether of adobe or other material. All of the reinforced-concrete structures were built under American administration, together with a large number of steel and miscellaneous structures.

DEPARTMENT OF MINDANAO AND SULU.

The department engineer reports the following durable bridges in existence in Zamboanga and Lanao Provinces on December 31, 1914:

	Number.	Total meter span.
Concrete.....	5	50.3
Steel.....	2	184.6
Total.....	7	234.9

These figures are exclusive of a Spanish suspension bridge at Pantar, Lanao, for which the figures for the length of span are not available. No durable road structures were reported for the other five Provinces of the department.

FINANCIAL STATEMENT.

Distribution of expenditure.

Purpose.	Insular.	Provincial, municipal, and other.	Total.
Roads and bridges.....	P2,349,312.13	P3,303,124.81	P5,652,436.94
Buildings.....	1,778,652.88	924,833.06	2,703,485.94
Port works.....	389,776.69	1,756.50	391,533.19
Water supply.....	318,703.79	133,309.64	452,013.43
Miscellaneous.....	598,150.93	96,672.57	694,823.50
Total.....	5,434,596.42	4,459,696.58	9,894,293.00

NOTE.—The insular figures include aid given to provinces and the amount by which the legal surcharge failed to cover the actual expenses of supervision. (Act No. 2319.) Comparison with the calendar year 1913 is not possible because the accounts were not balanced on December 31, 1912. The figures in the second column include loans, the provincial surcharges, and the insular surcharges on provincial and other work.

The figures above are exclusive of expenditures in the Department of Mindanao and Sulu, where P363,596.92 were expended on the public works during the calendar year 1914. A total of P2,820,984.46 was expended for department of public works between September 2, 1903, and December 31, 1914.

Port works includes harbor improvements and improvement of Pasig and Iloilo Rivers.

Revenue earned by the bureau from operation accounts.

Source of revenue.	New fiscal year 1914 (calendar year 1914).	July 1, 1913, to Dec. 31, 1913 (fiscal year 1914).
Carried to bureau account.....		P368,842.39
Surcharges.....	P375,076.23	
Miscellaneous:		
Blue-print section.....	P6,119.55	
Photo section.....	1,117.52	
Rental of baggage room.....	944.00	
Miscellaneous receipts, Manila.....	1,555.45	
Receipts from operation prior fiscal year.....		9,736.52
Gain on sales of fixed assets.....		2,611.39
Loss on sales of supplies.....		201.45
Loss on sales of supplies.....		(398.57)
Not carried to bureau account.....		91,224.85
Benguet auto line.....	P196,731.87	
Regulation of motor vehicle traffic.....	16,335.00	
Cottages and dormitory, Baguio.....	12,303.78	
Water supply systems.....	9,497.50	
Panay auto line.....	11,301.44	
Operation of Baguio storehouse.....	7,159.65	
Baguio telephone systems.....	6,093.88	
Benguet Road toll collection.....	6,646.64	
Corrals.....	3,027.04	
Miscellaneous receipts, Baguio.....	5,639.88	
	274,736.68	
Total.....	661,963.70	460,067.24

Profit and loss account, bureau of public works, fiscal year ending Dec. 31, 1914.

DEBIT.	
Salaries.....	P613,777.95
Maintenance of equipment.....	18,660.79
Contingent expenses.....	123,697.40
Depreciation of equipment.....	45,359.28
Extraordinary expense, losses, section 49, act No. 1792.....	1,023.97
Loss on sales of supplies.....	398.57
	<u>802,917.96</u>
CREDIT.	
Surcharges.....	375,076.23
Miscellaneous receipts.....	9,736.52
Receipts from operation prior fiscal year.....	2,611.39
Gain on sales of fixed assets.....	201.45
Net cost of operation.....	415,292.37
	<u>802,917.96</u>

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Summary of operation account, bureau of public works, fiscal (or calendar) year 1914.

DEBIT.

Net cost of operation.....	P415, 292. 37
Purchase of equipment.....	20, 606. 79
Reverted to insular treasury.....	798, 371. 93
	1, 234, 271. 09

CREDIT.

Appropriation.....	1, 057, 836. 00
Emergency board.....	1, 010. 67
Liquidation of fixed assets.....	174, 691. 91
Assets brought into account.....	832. 51
	1, 234, 271. 09

Assets and liabilities, bureau of public works, Dec. 31, 1914.

ASSETS.

Cash in the hands of disbursing officers.....	P106, 312. 28
Supplies.....	470, 201. 31
Accounts receivable.....	247, 025. 43
Permanent improvements.....	744, 149. 18
Equipment.....	P2, 221, 356. 58
Less provision for depreciation.....	923, 132. 34
	1, 293, 224. 24
	2, 860, 912. 44

LIABILITIES.

Cash from insular treasury.....	566, 686. 69
Accounts payable.....	256, 852. 33
Capital account.....	2, 037, 373. 42
	2, 860, 912. 44

BUILDING WORK.

The figures in the tabulations below exclude all structures of less than 100 cubic meters capacity.

Markets and schools completed.

Calendar year.	Markets and ti.ndas.		Schools.	
	Completed.	Percentage reinforced concrete.	Completed.	Percentage reinforced concrete.
1914.....	51	(1)	69	(1)
1913.....	37	(1)	51	(1)
Increase.....	14	(1)	18	(1)

¹ Figures not available at time of rendering report.

NOTE.—Buildings are classified under reinforced concrete when the outside walls, or in the case of markets the interior posts, are of that material.

<i>Summary, four and one-half years.</i>		Buildings completed.
Fiscal year 1911	-----	158
1912	-----	181
1913	-----	144
1914 (only 6 months' duration)	-----	54
New 1914	-----	136

BUILDING WORK IN THE DEPARTMENT OF MINDANAO AND SULU.

The department engineer reports the following important items completed during the calendar year 1914:

Department high school, Zamboanga	-----	₱23, 619. 49
Guard quarters, San Ramon, Zamboanga	-----	5, 415. 54
Granary and copra dryer, San Ramon, Zamboanga	-----	1, 882. 90
Cottage 2, San Ramon, Zamboanga	-----	5, 762. 26

NAGUILIAN AND BENGUET ROADS.

In October, 1913, this bureau recommended that a first-class road be constructed to Baguio from Bauang, on the west coast, through Naguilian to Baguio. This recommendation was based on the expense and difficulty of maintaining the Benguet Road as well as the reluctance of either branch of the Legislature to appropriate money for the same.

The matter was investigated by a committee appointed by the Commission, composed of Messrs. Singson and de Veyra, who, after a careful investigation and after full consideration of the data submitted by this bureau, recommended the construction of what is commonly known as the Naguilian Road. In accordance with this recommendation, the Commission appropriated ₱100,000 for a part of the necessary work, and the actual construction of the road was commenced in February, 1914.

At that time there already had been constructed a first-class road from Bauang to Naguilian (8 kilometers), a second-class road from Naguilian to Ripsuan (7 kilometers), a narrow cart road (passable for light automobile traffic in the dry season) from Ripsuan to Urisan (28 kilometers), and lightly surfaced road from Urisan (8 kilometers).

On March 31, 1915, the project will be completed, so far as the road itself is concerned, and there will then be a first-class road from Bauang to Baguio, a distance of 50 kilometers, the road having been somewhat shortened, owing to improved location. To complete the project, there will only be necessary two bridges, one over the Ripsuan River at a reasonable cost and one over the Naguilian River at a very high cost. A collapsible bridge over Ripsuan and a cableway at Naguilian will enable traffic to use the road during the rainy season, pending the construction of the bridges.

Appropriations to date from insular funds have been as follows:

Allotment from special province funds by the secretary of the interior	-----	₱23, 189. 23
Act No. 2312—Jan. 15, 1914	-----	100, 000. 00
Act No. 2397—Mar. 10, 1914	-----	135, 000. 00
Act No. 2411—Sept. 16, 1914	-----	60, 000. 00
Total	-----	318, 198. 23

By Act No. 2440, dated January 5, 1915, ₱52,000 was appropriated for maintaining the Mountain Province portion of the road during the fiscal year 1915.

On the main section of this road, that is, on the section between Baguio and Ripsuan, there had been spent from these appropriations at the close of the fiscal year 1914, ₱300,042.75.

The total cost of the project is somewhat difficult to get at, but approximately as follows:

Bauang to Naguillian-----	₱71, 109. 38	
Naguillian to Ripsuan-----	97, 779. 59	
Ripsuan to Baguio:		
City of Baguio-----	₱58, 743. 27	
Expenditures under supervision of government		
of Mountain Province-----	85, 017. 85	
Expenditures under supervision of bureau of public works-----	318, 198. 23	
		461, 959. 35
Total-----		630, 848. 32

The total cost of the Benguet Road, length 45 kilometers, was ₱3,923,694.10, averaging ₱87,200 per kilometer.

The construction of steel bridges at Ripsuan and Naguillian (estimated at ₱390,000) will bring the total cost of the Naguillian Road to about ₱1,021,000, or an average of ₱20,400 per kilometer.

In comparing the cost of the two projects, however, it must be borne in mind that work can be done now much cheaper, owing to experience and to improved organization, than was possible during 1901-1905, the period of the construction of the Benguet Road.

In comparing the relative advantages of the two roads it must also be remembered that the Benguet Road is the shortest route from Manila and that it established wagon communication for the first time between Baguio and Dagupan, at that time the terminal of the railroad and the nearest railroad station to Baguio. Had the Naguillian Road been built at that time it would not have put Baguio in communication with the railroad, which was not extended north to Bauang until some years after the Benguet Road was started.

But even making these allowances, it seems that the Naguillian route is the best and cheapest for a roadway into Baguio, and that it would have been better if it had been selected originally instead of the Bued Canyon, the location of the Benguet Road. Hind-sight, however, is proverbially easier than foresight, and with the limited information possessed by the original investigation it is not difficult to see why the Bued Canyon was selected.

It is believed that the maintenance of the Naguillian Road will be much cheaper than that of the Benguet Road. The selection of a ridge instead of a canyon location in a country subject to the enormous rainfall of the Benguet Mountains (it has reached 46 inches in 24 hours) and the elimination of the very large number of bridges necessary on the Bued Canyon route are sure to reduce the cost of upkeep and furnish a road on which there will be much less interruption of traffic from the effects of the heavy rainfall that usually accompanies the typhoons.

In short, it is believed that the Naguilian Road will be cheaper both in first cost and in maintenance than the Benguet Road and much more satisfactory in service.

At the same time it must not be overlooked that an excessive rainfall and an unstable geological formation are to be encountered on the Naguilian as well as on the Benguet Road, and that storms like those of July and September, 1911—not to mention others in 1909 and 1910—will do great damage to the Naguilian Road. But the cost of repairs and the length of interruption to traffic should be much less than on the Benguet Road.

The Benguet Road was opened to traffic in the latter part of the fiscal year 1905. Since that time its cost by fiscal years has been the following:

Maintenance of Benguet Road, nine and one-half year period.

1906 (old fiscal year)-----	₱128, 879. 24
1907 (old fiscal year)-----	84, 916. 55
1908 (old fiscal year)-----	164, 363. 65
1909 (old fiscal year)-----	299, 947. 19
1910 (old fiscal year)-----	358, 685. 82
1911 (old fiscal year)-----	166, 528. 42
1912 (old fiscal year)-----	253, 471. 58
1913 (old fiscal year)-----	179, 276. 28
1914 (fiscal year, 6 months)-----	129, 768. 01
1914 (new fiscal year)-----	51, 836. 01

The above cost includes both maintenance and improvements (including the construction of five steel bridges and various concrete and masonry work) and the cost of restoring the road after the tremendous damage done it by various storms.

The low cost in 1914 is due to the fact that the 1914 rainy season did less damage to the road than any since construction was started, and to the fact that bridges are not being replaced; in fact, they are not being maintained in good condition. The only repairs now made are of a provisional nature, and sufficient only to keep the bridges safe for the reduced loads now permitted. As bridge repairs and replacements used to form one of the heaviest items of expense in the upkeep of the road, the adoption of a policy of provisional repairs only has greatly reduced the cost. If, however, the road were to be kept open to traffic in the future, the time would come when a very heavy expenditure would be necessary for bridge replacements.

At the present time the Benguet Road is maintained entirely from toll receipts.

BUREAU OF POSTS.

DIRECTOR, WILLIAM T. NOLTING; ASSISTANT DIRECTOR, WILLIAM G. MASTERS.

Officers and employees of the bureau at the close of the year.

	Americans.		Filipinos.		Total, 1914.	Total, 1913.
	Classi- fied.	Unclassi- fied.	Classi- fied.	Unclassi- fied.		
Director.....	1				1	1
Assistant director.....	1				1	1
Superintendents.....	3		3		6	6
Cashier.....	1				1	1
Disbursing officer.....	1				1	1
District inspectors.....	11	2			13	6
Clerks.....	10	1	217	13	241	240
Railway postal clerks.....			11		11	13
Stenographers.....	4		5	1	10	8
Translators.....		1	1		2	2
Postmasters.....	3	16	2	663	684	660
Telegraph operators.....	2	15	2	235	252	276
Mechanics.....	2	2		12	16	14
Linemen.....	1	39		259	299	310
Enginemen.....		1		7	8	8
Teamsters and drivers.....				14	14	13
Letter carriers, Manila.....			30		30	30
Letter carriers, Provinces.....				549	549	548
Employees, office of director.....				24	24	23
Employees, post offices.....				140	140	145
Stamp agents.....				16	16	
Mail contractors and messengers.....		5		313	318	318
Total.....	40	82	269	2,246	2,637	2,624

Changes in personnel, not including mail contractors and messengers.

	Americans, 1914.	Filipinos, 1914.	Total, 1914.	Total, fiscal year 1913, July 1-Dec. 31.
Appointments.....	22	988	1,010	520
Reinstatements.....	1	5	6	2
Removals.....	4	144	148	78
Resignations:				
Due to economy.....	32		32	
For other causes.....	48	768	816	352
Transfers:				
To bureau.....	4	2	6	3
From bureau.....	2	3	5	
Deaths.....	2	6	8	4

Number of American and Filipino officers and employees, exclusive of mail contractors and messengers, at the time of rendering reports submitted to show relative number of Americans and Filipinos employed.

Dates.	Ameri- cans.	Filipi- nos.	Total.	Expenditure, salaries and wages.
June 30, 1905.....	156	456	612	P439,161.33
June 30, 1906.....	223	780	1,003	531,959.57
June 30, 1907.....	210	881	1,091	628,422.88
June 30, 1908.....	237	1,128	1,365	756,142.94
June 30, 1909.....	201	1,166	1,367	742,842.68
June 30, 1910.....	191	1,380	1,571	790,512.63
June 30, 1911.....	194	1,704	1,898	879,794.92
June 30, 1912.....	190	1,858	2,048	932,243.60
June 30, 1913.....	179	2,047	2,226	1,290,754.09
Dec. 31, 1913.....	178	2,128	2,306	679,655.98
Dec. 31, 1914.....	117	2,202	2,319	1,267,278.56

The expenditures shown for the years prior to 1913 do not include salaries and wages of teamsters and chauffeurs, cable employees, mechanics, linemen, and laborers, nor the money value of unpaid accrued leave.

The number of Americans employed at the close of the year 1914 was 61 less—or 34.2 per cent less—than the number employed at the beginning of the year.

The total annual salaries of the Americans separated from the service was ₱171,700.

The increase in the number of Filipinos employed was 74, or 3.4 per cent.

Number of post offices, money-order, savings-bank, and telegraph offices, and municipalities with free-delivery service at the close of the year.

Dates.	Post offices.	Money-order offices.	Savings-bank offices.	Telegraph offices.	Municipalities with free delivery service.
Dec. 31, 1914.....	685	302	439	303	447
Dec. 31, 1913.....	661	285	437	293	449
Increases.....	24	17	2	10	.....
Decreases.....					2

POSTAL DIVISION.

Free-delivery letter-carrier service was discontinued in two municipalities, making a total of 447 municipalities in which this service was in operation on December 31, 1914. The cost of this service, outside of Manila, was ₱91,111.07, an increase of ₱2,010.52, or 2.2 per cent, over the previous year.

The letter carriers in the city of Manila delivered 2,934,780 pieces of mail, an increase of 7.5 per cent over the previous year, and collected 3,016,828 pieces from street letter boxes, an increase of 17 per cent. The number of articles bearing special-delivery stamps and delivered by special messenger in Manila amounted to 19,112. The mail advertised in Manila amounted to 22,450 pieces, of which 1,729 pieces were subsequently delivered, the balance being turned in to the dead-letter office for disposition.

During the year 10,936 collect-on-delivery packages were handled, an increase of 7,164, or 189.9 per cent, while the collections amounted to ₱101,161.51, an increase of ₱58,052.21, or 134.4 per cent.

One branch post and telegraph office for the transaction of all classes of postal business and 16 substations for the sale of postage stamps and the registration of mail matter were established in Manila. The number of articles registered at the stations was 3,615, and the amount received from the sale of postage stamps was ₱12,969.83.

For the convenience of the public, on July 1, 1914, facilities were provided in the Manila post office for the wrapping of parcels. A uniform charge of 10 centavos is made for each parcel wrapped, and a charge of from 25 to 50 centavos is made for each box or mailing tube furnished. During the six months a total of 985 were handled, 824 of which were wrapped during the last three months, while the total revenue derived from this source was ₱125.91.

During the year a parcel-post convention was executed with French Indo China for the exchange of parcels between the two countries, and negotiations are now under way for such conventions with Japan, Singapore, Macao, Australia, and the German post office at Shanghai. An effort is being made to arrange for the exchange of such parcels with Netherlands East Indies, Siam, Ceylon, and India through the intermediary of either the Hongkong or Singapore offices.

At the beginning of the year 75 publications printed in the islands were listed as second-class matter and 6 newsdealers held permits to mail publications at the second-class rate of postage. During the year 11 new publications were admitted and 13 publications were discontinued, so that on December 31, 1914, there were 73 second-class publications and 6 registered newsdealers. The amount of second-class postage paid was ₱18,412.76, an increase over the previous year of ₱1,104.71, or 6.3 per cent.

The following is a summary of the registered mail handled:

	Calendar year 1913.	Fiscal year 1914.	Increase or de- crease.
Pieces of mail registered at Philippine offices.....	597,595	644,494	+ 7.8
Pieces received from the United States.....	42,796	27,738	-35.0
Pieces received from foreign countries.....	78,389	70,010	-10.7
Pieces sent to the United States.....	77,021	72,481	- 5.8
Pieces sent to foreign countries.....	51,595	52,972	+ 2.6
Pieces sent from one Philippine office to another Philippine office.....	468,979	519,041	+10.6
Pieces handled by the Manila post office.....	599,212	647,959	+ 8.1

In addition, there were received 8,742 insured parcels originating in the United States addressed for delivery in Manila.

The exchange of mails with the United States and foreign countries is summarized as follows:

	Calendar year 1913.	Fiscal year 1914.
Number of mails dispatched from the United States and received at Manila.....	104	97
By transports.....	12	13
By liners.....	92	84
Number of arrivals.....	87	69
Number of pouches of letters received from the United States.....	998	964
Number of pouches and sacks of registers received from the United States.....	1,759	1,247
Number of sacks of papers and merchandise received from the United States.....	24,057	24,764
Number of mails sent to the United States.....	102	84
By transports.....	12	13
By liners.....	90	71
Number of arrivals therein.....	72	70
Number of pouches of letters sent to the United States.....	885	849
Number of pouches and sacks of registers sent to the United States.....	2,498	2,343
Number of sacks of papers and merchandise sent to the United States.....	2,784	2,687
Number of bags sent to United States ships and troops in foreign countries.....	618	313
Number of bags received from United States ships and troops in foreign countries.....	217	251
Number of mails received from foreign countries.....	663	599
Number of bags received from foreign countries.....	9,715	8,302
Number of mails sent to foreign countries.....	632	543
Number of bags sent to foreign countries.....	4,236	3,605
Net weight of letters, grams, sent to foreign countries.....	11,262,455	9,724,502
Net weight, grams, of other articles sent.....	27,478,746	24,103,400
Number of parcel-post packages sent to foreign countries.....	3,650	3,286
Number of parcel-post packages received from foreign countries.....	7,280	5,968

Owing to the interruption of regular service, due to the European war, the number of mails received from foreign countries was 64 less than the number received during the previous year, while there was a

decrease of 89 in the number of mails dispatched to foreign countries.

The decrease in the net weight of letters sent to foreign countries was 1,537,953 grams, and the decrease in the weight of other articles 3,375,346 grams.

The following is a summary of articles received and disposed of in the dead-letter office:

	Registered articles.	Ordinary letters.	Ordinary packages.	Total.
ARTICLES RECEIVED.				
From—				
United States	3	1,805	15	1,823
Foreign countries	25	3,297	319	3,641
Manila post office and other Philippine sources	434	50,329	1,027	51,760
Returned after attempt to find senders		3,400		3,400
Total accounted for	462	58,831	1,361	60,654
DISPOSITION MADE.				
Returned to United States		2,775	170	2,945
Returned to foreign countries		3,560	300	3,860
Request matter returned to senders in the Philippines	66	2,397	196	2,659
Opened and returned to senders		27,262	83	27,345
Containing money, drafts, stamps, etc., returned to senders		85		85
Containing other valuable matter returned to senders		1	2	3
Destroyed	12	22,687	587	23,286
Containing money, drafts, stamps, etc., filed		52		52
Containing other valuable matter, filed	384	12	23	419
Total accounted for	462	58,831	1,361	60,654

At the close of the year there were on file in the dead-letter office 751 registered articles and 91 letters containing money, drafts, or stamps, and 1,201 letters and packages containing other valuables. During the year money to the amount of ₱139.55 was taken from letters which had been on file more than one year and turned into postal revenues as miscellaneous receipts.

MONEY-ORDER DIVISION.

The following is a comparative statement of the money-order business for the calendar year 1913 and the fiscal year 1914:

	Calendar year 1913.	Fiscal year 1914.
Number of orders issued payable in the Philippines	220,943	254,880
Amount of same	₱13,524,226.56	₱14,880,007.02
Fees on same	₱64,020.22	₱72,685.42
Number of orders issued payable in the United States and other countries	71,769	70,683
Amount of same	₱3,668,084.86	₱3,804,714.06
Fees on same	₱32,731.08	₱33,389.92
Number of Philippine orders paid and repaid here	215,458	255,070
Amount of same	₱13,346,075.22	₱14,869,831.82
Number of orders of the United States and other countries paid in the Philippine Islands	10,685	10,448
Amount of same	₱543,461.64	₱547,852.74
Amount of Philippine orders paid in the United States and other countries	₱3,921,537.16	₱3,846,930.66
Deposits of money-order funds received at Manila from provincial offices	₱10,552,260.54	₱11,420,832.26

The money-order service was established at 17 additional offices. The total number of all orders issued was 325,563, an increase of 32,851, or 11 per cent, and the amount of these orders was ₱18,684,721.08, an increase of ₱1,492,409.66, or 8.6 per cent. The fees

amounted to ₱106,075.34, from which ₱258.51, to pay the cost of bank exchange in settlement of balances due Hongkong, was deducted before these fees were transferred to the postal funds, as provided by law.

The foregoing statistics of money orders issued and paid in the islands include 9,621 telegraphic transfers by means of the money-order service, amounting to ₱2,360,741.16, upon which the money-order fees amount to ₱8,697.77, and ₱16,158.50 for the telegrams required to make the transfers. The amount of the transfers shows an increase over 1913 of 10 per cent, money-order fees of 17 per cent, and telegraphic tolls collected of 23 per cent.

The total amount of money orders sent out of the islands by means of the money-order service was ₱3,804,714.06, being an increase of 4 per cent. As the amount of United States and foreign orders paid in the islands was only ₱547,852.74, the balance against us is ₱3,256,861.32.

TELEGRAPH DIVISION.

The following is a summary of the telegraph business:

Telegrams sent.	Calendar year 1913.		Fiscal year 1914.	
	Number.	Value.	Number	Value.
Insular, provincial, and municipal, official.....	99,206	₱99,033.46	90,427	₱103,267.26
Weather bureau.....	40,321	65,647.98	32,454	57,891.62
Federal Government, official.....	8,833	13,948.00	5,415	8,294.24
Commercial.....	520,105	449,678.42	563,417	509,095.26
Total.....	668,465	628,327.86	691,713	678,548.38

The number of commercial telegrams for the year ended December 31, 1914, as compared with the corresponding period ended December 31, 1913, increased 8.3 per cent, while the amount of revenue thereon increased 13.2 per cent. The federal business decreased 38.6 per cent in number and decreased 40.6 per cent in amount. The insular, provincial, and municipal government, excluding the weather bureau, increased 8,779, or nearly 8.8 per cent in number, while the increase in revenue over the previous year was ₱4,233.80, or 4.2 per cent. The weather bureau business decreased nearly 19.4 per cent in number and decreased ₱7,756.36, or more than 11.8 per cent, in amount. The increase in the total number of telegrams was 23,248, or 3.4 per cent, and the increase in revenue was ₱50,220.52, or 7.9 per cent.

The changes in the telegraph service are summarized as follows:

	Calendar year, 1913.	Fiscal year, 1914.
Telegraph lines built..... kilometers..	62.6	543.8
Telegraph lines rebuilt..... do.....	70.8	812
Destroyed by typhoons..... do.....		100
Telegraph land lines abandoned..... do.....	25.1	16.1
Telegraph cables laid..... do.....		78.9
Telegraph cables recovered and abandoned..... do.....	23.4	134.32
Telegraph wires at close of year..... do.....	7,450.16	7,977.86
Telegraph cables at close of year..... do.....	1,872.16	1,816.74
Telegraph offices opened..... number..	16	14
Telegraph offices closed..... do.....	3	4
Telegraph offices at close of year..... do.....	293	303

During the year 10 additional telegraph offices were established and new lines were constructed from Balayan to Nasugbu, Batangas; Dapitan to Oroquieta, Misamis; Lopez to Calauga, via Hondagua, Tayabas; Malicboy to Laguimanoc, Tayabas; and a loop to Apalit, Pampanga. The increased volume of business made necessary the construction of a second wire from Dumaguete, Oriental Negros, to Valladolid, Occidental Negros, and from Dapitan to Misamis, Misamis, a total of 543.8 kilometers of new construction.

POSTAL SAVINGS BANK DIVISION.

Summary of the Postal Savings Bank Service.

	From July 1 to Dec. 31, 1913.	Calendar year 1913.	Fiscal year 1914.
Number of bank offices at close of year:			
First class.....	40	40	271
Second class.....	268	268	168
Third class.....	129	129	.....
Total.....	437	437	439
Number of new accounts opened during the year.....	5,390	9,947	12,622
Number of accounts closed during the year.....	3,028	5,751	6,017
Number of accounts open at close of the year.....	42,271	42,271	48,876
Increase over prior year.....	2,362	.....	6,605
Average amount of each open account at close of year.....	P66.76	P66.76	P64.81
Number of deposits during the year.....	33,651	60,716	72,080
Average amount of deposits.....	P48.70	P51.28	P50.62
Total deposits made by depositors.....	P1,638,739.30	P3,113,236.40	P3,649,034.93
Annual accrued interest placed to credit of depositors at close of year.....	P22,100.83	.....	P45,101.29
Number of withdrawals during year.....	17,255	32,952	39,092
Average amount of withdrawals.....	P76.45	P86.64	P85.65
Total amount of withdrawals.....	P1,319,189.73	P2,854,828.28	P3,348,253.58
Savings bank stamps sold.....	P11,538.20	P19,077.80	P21,519.20
Savings bank stamps redeemed.....	P11,151.00	P19,565.00	P20,948.00
Savings bank stamps outstanding.....	P7,618.20	P7,618.20	P8,189.40

Classification of depositors.

	Open accounts Dec. 31, 1913.	New accounts opened during year.	Accounts closed during year.	Open accounts Dec. 31, 1914.
As to nationality:				
Americans.....	5,246	2,085	1,994	5,337
Filipinos.....	35,162	9,890	3,638	41,414
Europeans.....	1,103	356	240	1,219
Asiatics.....	704	282	140	846
Societies.....	56	9	5	60
As to occupation:				
Professional.....	4,598	1,222	643	5,177
Clerical.....	4,688	1,645	666	5,667
Students.....	16,843	3,375	1,765	18,453
Mercantile.....	1,769	595	261	2,103
Agriculture.....	1,799	552	187	2,164
Artisans.....	2,572	874	368	3,078
Domestics.....	1,633	678	267	2,044
Laborers.....	2,596	1,062	311	3,347
Soldiers and sailors.....	2,647	1,341	1,070	2,918
Policemen and firemen.....	682	342	112	912
Women, no occupation.....	1,010	397	205	1,202
Children.....	1,159	482	137	1,504
Miscellaneous, unclassified.....	219	48	20	247
As to sex:				
Male.....	32,781	9,905	4,774	37,912
Female.....	9,434	2,708	1,238	10,904
As to marriage relation:				
Married.....	10,486	3,930	1,535	12,881
Unmarried.....	31,729	8,683	4,477	35,935

REPORT OF THE SECRETARY OF COMMERCE AND POLICE. 201

Statement of income and expenditures of the Postal Savings Bank.

	Fiscal year 1913.	From July 1 to Dec. 31, 1913.	Fiscal year 1914.
INCOME.			
Earnings for year collected during year	P88,151.31	P10,653.95	P92,586.58
Accrued earnings uncollected at close of year account not due	35,237.92	55,914.61	61,176.36
Total	123,389.23	66,568.56	153,762.94
Net deficiency	5,483.22	5,425.85	
EXPENDITURES.			
Salaries and wages	67,581.51	40,078.82	72,485.14
Expenses, personnel	265.44	160.93	2,566.45
Office expenses	12,927.35	5,929.14	12,142.00
Rentals	2,753.90	1,443.49	3,728.16
Incidental expenses	781.29	411.55	38.95
Total operating expenses	84,309.49	48,023.93	89,900.70
Interest paid on closed accounts	6,869.49	1,869.65	7,590.10
British income tax paid on Manila R. R. Co. bonds	449.02		
Interest added to accounts at close of year as deposits	37,244.45	22,100.83	45,101.29
Total	128,872.45	71,994.41	142,652.09
Net surplus			11,110.85

Investments of bank funds at close of year.

	June 30, 1913.	Dec. 31, 1913.	Dec. 31, 1914.
LOANS TO BANKS.			
International Banking Corporation, at 3½ per cent.	P70,000.00	P70,000.00	P70,000.00
Hongkong & Shanghai Banking Corporation, at 3½ per cent.	170,000.00	170,000.00	170,000.00
Chartered Bank of India, Australia & China, at 3½ per cent.	340,000.00	490,000.00	640,000.00
BONDS.			
Philippine Ry. Co. bonds, at 4 per cent.	505,000.00	505,000.00	505,000.00
Manila R. R. Co. bonds, at 4 per cent.	323,875.50	323,875.50	323,875.50
City of Manila bonds, at 4 per cent.	460,000.00	460,000.00	460,000.00
Real estate mortgages, 8 per cent and 10 per cent.	623,798.50	751,380.00	887,500.00
Total	2,492,674.00	2,770,255.50	3,056,375.50

Assets and liabilities of the bank.

	June 30, 1913.	Dec. 31, 1913.	Dec. 31, 1914.
ASSETS.			
Loans to banks	P580,000.00	P730,000.00	P890,000.00
Bonds	1,288,875.50	1,288,875.50	1,288,875.50
Real estate mortgages	623,798.50	751,380.00	887,500.00
Interest account	35,237.92	55,914.61	61,176.36
Cash in hands of postmasters	27,422.96	23,104.22	66,217.34
Cash in insular treasury			1,546.46
Total	2,555,334.88	2,859,274.33	3,187,315.66
LIABILITIES.			
Deposit fund, due depositors	2,480,492.37	2,822,132.77	3,166,015.41
Stamp fund, stamps out-standing	7,231.00	7,618.20	8,199.40
Reserve fund, earnings in excess of expenditures for year 1914			11,110.85
Insular treasury, cash advanced from general fund to pay expenses	67,621.51	29,523.36	
Total	2,555,334.88	2,859,274.33	3,187,315.66

Revenues, exclusive of the Postal Savings Bank.

	July 1 to Dec. 31, 1913.	Calendar year 1913.	Fiscal year 1914.
BY ITEMS.			
Stamp sales for postage.....	₱318,121.16	₱625,309.05	₱610,805.85
Stamp sales for registry fees.....	45,460.00	87,745.44	91,618.56
Stamp sales for commissions on c. o. d. parcels.....	560.52	897.32	2,401.56
Miscellaneous postage paid in cash.....	2,456.98	5,191.96	4,928.28
Second-class postage.....	9,011.82	17,308.05	18,412.76
Box rents.....	14,678.55	30,195.75	31,089.03
Unclaimed matter and sale of waste paper.....	684.20	724.94	368.80
Money-order fees.....	47,512.02	95,106.49	105,549.05
Stamp sales for telegrams.....	301,210.38	608,300.35	610,838.20
Telegrams paid in cash.....	8,005.02	20,027.51	67,710.18
Miscellaneous (telegraph division).....	56.30	56.30	3,952.76
Miscellaneous (postal division).....		381.41	4,307.85
Total.....	747,746.95	1,491,244.67	1,551,982.88
BY DIVISIONS.			
Postal division.....	390,963.23	767,754.02	763,932.69
Money-order division.....	47,512.02	95,106.49	105,549.05
Telegraph division.....	309,271.70	628,384.16	682,501.14
Total.....	747,746.95	1,491,244.67	1,551,982.88

Comparing the fiscal year 1914 with the calendar year ended December 31, 1913, shows a loss of ₱3,821.33, or one-half of 1 per cent, in the postal division, a gain of ₱10,442.56, or 10.9 per cent, in the money-order division, and a gain of ₱54,116.94, or 8.6 per cent, in the telegraph division. The total revenues increased ₱60,738.19, or 4 per cent, while there was a decrease in the expenditures of ₱232,166.07, or 10.8 per cent. The expenditures for the calendar year 1913 exceeded the revenues by ₱655,860.00, or 45.4 per cent, while the expenditures for the year 1914 exceeded the revenues by ₱362,955.72, or 23.4 per cent.

The following is the revenue account, bureau of posts, for the six months ended December 31, 1913, the calendar year 1913, and the fiscal year 1914:

	July 1 to Dec. 31, 1913.	Calendar year 1913.	Fiscal year 1914.
Stamp sales.....	₱665,352.06	₱1,322,252.26	₱1,315,664.17
Second-class postage.....	9,011.82	17,308.05	18,412.76
Box rents.....	14,678.55	30,195.75	31,089.03
Money-order fees.....	47,512.02	95,106.49	105,549.05
Unclaimed matter, etc.....	408.80	449.54	368.80
Receipts from operation.....	10,793.70	25,932.58	80,899.07
Total.....	747,746.95	1,491,244.67	1,551,982.88
Receipts from operation:			
Telegrams.....	8,005.02	20,027.51	67,710.18
Miscellaneous.....	2,788.68	5,905.07	13,188.89
Total.....	10,793.70	25,932.58	80,899.07
Miscellaneous receipts from operation:			
Postal receipts (Postal Savings Bank).....	2,456.98	5,191.96	4,928.28
Fines.....	275.40	275.40	347.44
Percentage on sales.....	50.80	91.30	75.51
Telephone maintenance.....			3,465.65
Sales of articles not carried as assets.....		281.11	321.54
Gains on purchases.....			445.20

	July 1 to Dec. 31, 1913.	Calendar year 1913.	Fiscal year 1914.
Miscellaneous receipts from operation—Continued.			
Payment by Lichauco & Co., to cover deficit of Sisiman telegraph office.....			₱313.39
Share of province of Batangas of Balayan-Nasugbu line.....			608.97
Acquisition of assets through receipts from opera- tion.....			83.71
Prior year income.....			864.70
Sales of supplies.....			1,240.68
Sale of fixed assets.....			493.82
Incidentals.....	₱5.50	₱65.30	
Total.....	2,788.68	5,905.07	13,188.89

*Comparative statement of expenditures for six months ended December 31, 1913,
calendar year 1913, and fiscal year 1914.*

Accounts as classified by the insular auditor.	July 1 to Dec. 31, 1913.	Calendar year 1913.	Fiscal year 1914.
(B) Plant and equipment:			
(1) Permanent buildings and structures.....	₱3,028.09	₱11,198.83	₱52,905.99
(4) Wharf.....			1,843.00
(6) Construction of telegraph lines.....	11,705.30	24,357.13	40,255.61
(8) Land transportation equipment.....	973.23	39,612.05	25,838.67
(10) Stationary machinery.....	2,306.00	2,306.00	
(11) Portable machinery, tools, etc.....	128.51	1,406.53	646.85
(12) Furniture and fixtures.....	7,670.39	22,337.56	28,921.38
(13) Miscellaneous equipment.....	11.38	1.38	22,701.10
Total.....	18,984.66	96,604.72	121,435.26
(D) Salaries and wages.....	525,255.92	1,022,286.36	1,194,793.42
(E) Office expenses:			
(1) Expenses of personnel.....	10,562.92	25,001.64	49,530.40
(2) Transportation.....	180,733.02	423,849.48	293,234.30
(3) General office expenses.....	34,267.96	61,849.06	82,480.91
(4) Rentals.....	13,312.59	26,589.43	27,584.70
(5) Special service.....	101.49	197.44	25.46
(6) Incidental general expenses.....	2,335.36	13,391.05	1,908.52
Total.....	241,313.34	550,878.10	454,764.29
(F) Maintenance:			
(1) Buildings and structures.....	2,629.63	6,837.11	1,760.89
(6) Telegraph and telephone lines.....	163,022.23	405,644.68	125,901.95
(8) Land transportation equipment.....	4,689.97	6,952.20	3,100.40
(11) Portable machinery, tools, etc.....	775.32	893.72	172.00
(12) Furniture and fixtures.....	8,459.73	9,763.19	2,256.09
(13) Miscellaneous equipment.....	42.94	44.56	3,899.10
Total.....	179,619.82	430,135.46	137,090.43
(C) Supplies.....	46,956.72	10,700.56	44,304.86
(I) Prior year's expenses.....	59,214.21	57,900.59	5,121.66
Capital value of fixed assets sold.....			492.86
Cost of goods sold.....			1,240.68
Total expenditures.....	1,071,344.67	2,147,104.67	1,914,938.90

The salaries and wages of linemen, cable employees, mechanics, teamsters, and laborers for the period July 1 to December 31, 1913, amounting to ₱114,321.24, and for the calendar year 1913, amounting to ₱224,418.09, were charged to maintenance of telegraph and telephone lines (F-6), whereas for the fiscal year 1914 the salaries of these employees are included in the salaries and wages account (D), in which is also included the money value of unpaid accrued leave.

Summary of accounts, bureau of posts, for the fiscal year ended Dec. 31, 1914.

DEBIT.

Brought forward for contingent obligations, Dec. 31, 1913	₱111,057.65	
Appropriations:		
Act No. 2319	₱1,925,409.00	
Act, emergency	2,819.24	
Act No. 2191	52,905.99	
Act No. 2264	50,000.00	
Act No. 2378	20,000.00	
Act No. 2407	35,000.00	
	2,086,134.23	
Appropriated surplus (supplies taken up)	3,167.69	
		₱2,200,359.57
Receipts from operation:		
Stamp sales	1,315,664.17	
Second-class postage	18,412.76	
Box rents	31,089.03	
Money-order fees	105,549.05	
Unclaimed matter, etc	368.80	
Miscellaneous receipts	80,899.07	
		1,551,982.88
Total		3,752,342.45

CREDIT.

Total expenditures		1,914,938.60
Unexpended balances:		
Act No. 2264	23,457.75	
Act No. 2378	20,000.00	
Act No. 2407	23,014.21	
		66,471.96
Reversions:		
Revenues	1,551,982.88	
Unexpended balance	218,949.01	
		1,770,931.89
Total		3,752,342.45

Statement of assets and liabilities, Dec. 31, 1914.

ASSETS.

Permanent improvements, plant and equipment:		
Buildings and structures	₱33,256.95	
Wharves	1,843.00	
Telegraph and cable lines	1,570,519.86	
Land-transportation equipment	40,264.02	
Portable machinery, tools, etc	22,763.55	
Furniture and fixtures	365,154.86	
Miscellaneous equipment	23,383.88	
		₱2,057,186.12

Supplies on hand.....	₱135,557.61
Accounts receivable.....	8,657.13
Cash:	
Treasury.....	37,747.67
Postmasters.....	79,304.70
Other officers.....	2,643.79
	<u>44,200.82</u>
Total.....	2,245,601.68

LIABILITIES.

Accounts payable.....	188,415.56
Net worth, bureau of posts, Dec. 31, 1914.....	<u>2,057,186.12</u>
	2,245,601.68

BUREAU OF COAST AND GEODETIC SURVEY.

DIRECTOR OF COAST SURVEYS: P. A. WELKER, JANUARY 1, 1914, TO FEBRUARY 28, 1914; W. C. HODGKINS, MARCH 1, 1914, TO DECEMBER 31, 1914.

Officers and employees of the bureau at the close of the year.

	Americans, 1914.	Filipinos, 1914.	Total, 1914.	Total, 1913.
Director.....	1		1	1
Accountant.....	1		1	1
Draftsmen-cartographers.....	2		2	2
Clerks.....	1	2	3	3
Junior draftsmen.....		20	20	21
Messenger.....		1	1	1

CHANGES IN PERSONNEL.

Appointments.....				3
Reinstatements.....				
Removals.....		1	1	
Resignations.....				
Transfers:				
To bureau.....				
From bureau.....				
Deaths.....				

Statement of number of American and Filipino officers and employees in the Bureau of Coast and Geodetic Survey at the time of rendering reports submitted to show relative numbers of Americans and Filipinos employed.

Dates.	Americans.	Filipinos.	Total.	Salary ex- penditures.
June 30, 1905.....	3	19	22	₱25,840
June 30, 1906.....	3	19	22	25,840
June 30, 1907.....	3	21	24	26,360
June 30, 1908.....	5	22	27	34,960
June 30, 1909.....	5	22	27	35,596
June 30, 1910.....	4	24	28	34,864
June 30, 1911.....	3	25	28	33,304
June 30, 1912.....	4	23	27	36,404
June 30, 1913.....	4	24	28	37,504
Dec. 31, 1913.....	4	24	28	1 18,852
Dec. 31, 1914.....	4	23	27	37,344

¹ Six months.

The above statement does not include the director of coast surveys, who is an officer of the United States Coast and Geodetic Survey, nor per diems paid by the government of the Philippine Islands to the officer detailed to said position by the Superintendent of the United States Coast and Geodetic Survey.

Statement of accounts.

DEBIT.

To balance brought forward (Act No. 2264), "Launch for S. S. Research"-----	₱3,000.00
To appropriation Act No. 2319, "Bureau of coast and geodetic survey"-----	196,230.00
To sales of fixed assets-----	25.00
To receipts from operation:	
Sales of maps-----	₱923.00
Sales of waste property-----	481.13
	<u>1,404.13</u>
Total-----	200,659.13

CREDIT.

Total expenditures under Act No. 2264-----	2,756.91
Total expenditures under Act No. 2319-----	191,107.48
	<u>193,864.39</u>
Receipts from sales of fixed assets and receipts from operation reverted to the treasury-----	1,429.13
Unexpended balance, Act No. 2264-----	243.00
Unexpended balance, Act No. 2319-----	5,122.52
	<u>200,659.13</u>
Total-----	200,659.13

Statement of assets and liabilities.

ASSETS.

Water craft and appurtenances-----	₱190,625.05
Hand tools-----	810.56
Furniture and office equipment-----	9,062.75
Miscellaneous equipment-----	2,726.77
	<u>₱203,225.13</u>
Supplies on hand-----	267.52
Accounts receivable-----	797.47
Cash:	
In treasury-----	2,826.69
In hands of chiefs of parties-----	18,500.00
	<u>15,073.31</u>
Total-----	219,963.43

LIABILITIES.

Accounts payable-----	16,738.30
Net worth-----	203,225.13
	<u>219,963.43</u>
Total-----	219,963.43

Work accomplished by the different ships during the new fiscal year 1914.

[All distances are in statute miles.]

	Path-finder.	Fathom-er.	Marin-duque.	Rom-blon.	Research.	Totals.
Triangulation:						
Square miles of area covered.....	889	580	1,288	385	1,448	4,590
Signals and scaffolds erected.....	33	35	23	44	52	187
Station occupied (horizontal angles)....	36	29	34	32	23	154
Geographical positions determined.....	36	36	20	53	76	221
Magnetic stations occupied.....		1				1
Base lines measured.....	1				1	2
Azimuth stations occupied.....						
Topography:						
Square miles area covered.....	179	77	83	117	214	670
Miles of coast line surveyed.....	153	259	68	266	144	890
Miles rivers and creeks surveyed.....	89	17	2	4	27	139
Miles of roads surveyed.....	12	20			9	41
Topographic sheets completed.....	11	11	4	9	6	41
Hydrography:						
Square miles of area sounded.....	10,580	1,251	723	1,495	549	14,598
Miles run while sounding.....	4,475	8,155	5,116	8,044	2,114	27,904
Number of soundings made.....	27,032	77,613	153,793	87,366	25,627	371,431
Tidal stations established.....	10	3	1	5	5	24
Hydrographic sheets completed.....	13	2	2	9	6	32
Number of days in the field.....	279	215	320	319	300	1,433

The localities covered by the operations of the steamers of the bureau of coast and geodetic survey were as follows:

The party on the *Fathomer* was employed throughout the year in the survey of the large area extending from the coast of Panay across the Cuyo Islands to the Calamian group, with additional work in the vicinity of Iloilo in an attempt to locate the position of a shoal in the southwestern approach to that port which had been reported earlier in the year by another vessel.

The operations of the *Marinduque* were confined to the east coast of Palawan, around Dumarán Island, up to the end of November. For the remainder of the year she was employed in the survey of several shoals in Coron Bay, Calamian Islands.

During the year the steamer *Pathfinder* was employed on several different pieces of work. From January 1 to February 4 she was engaged in the survey of the approaches to Manila Bay. After repairs at Olongapo the steamer proceeded on March 1 to the southern coast of Mindanao, where the party was engaged in a survey of the coast from Parang across the delta of the Mindanao River and southward to Port Lebak, until the end of July. During August and the first half of September the *Pathfinder* worked on the eastern coast of Mindanao and completed the junction, near Hinatuan, between the surveys previously executed on that coast, proceeding to the southward from Surigao and to the northward from Cape San Agustin. She afterwards made a special examination of certain parts of the Sulu Sea, particularly in the vicinity of Moyune Shoal, where the British steamship *Bengloe* had stranded on September 13, 1914, and of a shoal on the eastern coast of Negros.

The steamer *Research* was employed throughout the year in the survey of the region between Masbate and southern Luzon, which includes Ticao Island. In addition to this regular work of the party, an examination was made of a shoal in Cebu Harbor and another north of Negros, near the small Baliguian Island.

The *Romblon* was engaged throughout the year in the survey of the region extending from the northern end of Palawan to the

southern end of Culion and west of the latter island. This area includes a great number of islands of various sizes, almost all of which have now been surveyed.

During the year covered by this report, no change was made in the general plan of operations or in the previously existing arrangement for the division of expenses between the Federal and the Insular Governments.

The five steamers in the service of the bureau were kept at work in the field continuously except when repairs became necessary, and except that toward the end of the year it became necessary to call in two of the vessels in order to avoid the possibility of overrunning the appropriation.

The time so lost from the field work was utilized in repairing the vessels and in bringing up the office work of computation and drawing.

BUREAU OF LABOR.

DIRECTOR, BERNARDINO G. MONREAL; ASSISTANT DIRECTOR, FAUSTINO AGUILAR, JANUARY 1, 1914-DECEMBER 31, 1914.

Officers and employees of the bureau at the close of the year.

	Americans, calendar year 1914.	Filipinos, calendar year 1914.	Total, calendar year 1914.	Total, calendar year 1913.
Director.....		1	1	1
Assistant director.....		1	1	1
Chief clerk.....		1	1	1
Attorney.....		1	1	1
Chief of division.....		1	1	1
Clerks.....		19	19	20
Messengers.....		5	5	5
Chauffeur.....		1	1	1

CHANGES IN PERSONNEL.

Appointments:				
Classified service.....		1	1	1
Unclassified service.....		9	9	22
Reinstatements.....				1
Removals:				
Classified service.....				
Unclassified service.....		2	2	2
Resignations (voluntary):				
Classified service.....				2
Unclassified service.....		7	7	13
Resignations, due to economy:				
Classified service.....				
Unclassified service.....		1	1	
Transfers:				
To bureau.....				2
From bureau.....				2
Deaths.....				1

Statement of number of American and Filipino officers and employees at the time of rendering reports submitted to show relative numbers of Americans and Filipinos employed.

Dates.	Americans.	Filipinos.	Total.	Salary ex- penditures.
June 30, 1910.....		17	17	P16,374.24
June 30, 1911.....		22	22	25,406.50
June 30, 1912.....		26	26	28,778.68
June 30, 1913.....		28	28	29,224.00
Dec. 31, 1913.....		30	30	16,684.03
Dec. 31, 1914.....		30	30	38,149.48

The following comparative statement shows the personnel of this bureau during the last two fiscal years:

Divisions.	New fiscal year 1914 (Jan.-Dec., 1914).		Fiscal year 1914 (July-Dec., 1913).	
	Officers and em- ployees.	Messen- gers.	Officers and em- ployees.	Messen- gers.
Central office.....	18	2	14	1
Free employment agency, Manila.....	2	1	2	1
Free employment agency, Cebu.....	2	1	3	1
Free employment agency, Iloilo.....	2	1	3	1
Free employment agency, Ilocos.....	1	.....	3	1
Total.....	25	5	25	5

FREE EMPLOYMENT AGENCIES.

The following statement shows the activities of the four free employment agencies of this bureau during the calendar year 1914:

Free employment agencies.	Labor- ers regis- tered.	Labor- ers placed.	Per cent of labor- ers placed.
Manila.....	3,200	2,599	81.22
Cebu.....	3,387	3,162	93.36
Iloilo.....	1,306	884	67.69
Ilocos.....	608	528	86.84
Total.....	8,501	7,173	82.00

The following comparative statement shows the activities of the four free employment agencies of this bureau during the last two calendar years:

Free employment agencies.	Registered.		Per cent of—		Placed.		Per cent of—	
	1914	1913	In- crease.	De- crease.	1914	1913	In- crease.	De- crease.
Manila.....	3,200	2,471	22.78	.....	2,599	1,295	50.17	.....
Cebu.....	3,387	4,782	.....	41.19	3,162	4,271	.....	35.07
Iloilo.....	1,306	2,369	.....	81.39	884	2,010	.....	127.38
Ilocos.....	608	399	34.37	.....	528	303	42.61	.....
Total.....	8,501	10,021	.....	17.88	7,173	7,879	.....	9.84

The memorandum order of the Governor General, dated August 22, 1914, is responsible for the decreases shown in the Cebu and Iloilo agencies, as immediately upon the receipt of this order no more money was expended for the transportation of emigrant laborers and per diems for recruiting agents. In Manila and Ilocos the recruiting was not suspended, as in the former the employment of laborers is largely local and entails but little expense, and in the latter it was necessary to recruit laborers for the agricultural colony at Abulog, Cagayan.

Of the total of 7,173 placed during the year, 4,028 represents emigrant laborers sent by the four agencies to other localities.

EXPENDITURES.

This bureau exercised as much economy as possible, and therefore out of a total appropriation of ₱54,324.20 but ₱51,341.66 was expended.

Statement of accounts, 1914.

DEBIT.

To appropriation Act No. 2319:

Salaries and wages-----	₱37,312.20	
For the purchase and repair of equipment-----	960.00	
For the purchase of office supplies-----	760.00	
Transportation of officers, employees, and per diems or allowances in lieu thereof-----	5,000.00	
Transportation of emigrant laborers and maintenance of same-----	4,000.00	
Street-car tickets-----	72.00	
Cablegrams, postage, and telegrams-----	700.00	
Printing and binding-----	2,200.00	
Care and maintenance of office building-----	700.00	
Rent of offices-----	1,500.00	
Telephone rentals-----	720.00	
Incidental expenses-----	400.00	
		₱54,324.20
Receipt from operation and sales of fixed assets-----		11.35
Total-----		54,335.55

CREDIT.

Total expenditure-----	49,441.66
Unexpended balance-----	4,893.89
Total-----	54,335.55

Statement of assets and liabilities.

ASSETS.

Equipment:		
Transportation equipment-----	₱4,535.01	
Furniture and fixtures-----	9,941.47	
		₱14,526.48
Accounts receivable-----		120.00
In treasury-----	6,955.79	
In other offices-----	100.00	
		7,055.79
Total-----		21,702.79

LIABILITIES.

Accounts payable-----	6,296.57
Contingent obligations-----	759.22
Net worth-----	14,646.48
Total-----	21,702.27

COMPLAINTS AND CLAIMS.

The bureau, through its four offices, investigated 753 complaints, involving 1,334 laborers and workers in various trade. Their claims amounted to ₱20,618.05, mostly for wages due; and of this amount the bureau helped to recover ₱6,931.09 through amicable settlement

and brought suit for ₱4,221.71 against the parties concerned, the balance of the claims being withdrawn for various reasons by the parties making them.

LABOR ACCIDENTS.

The following table shows the number of labor accidents which were investigated by the bureau during the year:

Number of accidents-----	267
Number of victims-----	291
Number of deaths-----	60
Permanent disability-----	13
Temporary disability-----	213

STRIKES.

During the year 10 strikes occurred in Manila and the provinces. Of these, 4 were satisfactorily adjusted, but in the remaining 6 no settlement could be reached. These strikes occurred as follows:

On January 17, 1914, 32 laborers in the warehouses of the Manila Railroad at Caloocan struck because free transportation to Pampanga was refused them, to which they were entitled according to their agreement, and also because laborers sent out of Manila were offered higher wages. This strike was settled at the end of 10 days to the satisfaction of both parties.

On January 27, 1914, the cigarmakers of "La Grandeza" cigarette factory of Manila demanded that their foreman be discharged, alleging uncalled-for exaction on his part. The company retained the foremen and employed other workers and the cigarmakers who had refused to work for the foreman went elsewhere.

On February 19, 1914, 15 typesetters in the office of El Comercio, of Manila, took offense at the manner in which they were addressed by the manager, mixed up the type, and left their work. New typesetters were employed to take their place.

On March 14, 1914, 100 of the laborers employed in the Luzon Sugar Refining Co. of Malabon, Rizal, struck because a monthly increase in wages, which had been promised them, was withheld. The increase was granted and the laborers returned to work.

On April 13, 1914, the laborers employed in the branch of the "La Germinal" Co. at Malabon, Rizal, struck because the management had reduced the scale of wages to the one in force in other cigar factories. The laborers remained out for eight days, at which time they returned to work.

On June 27, 1914, the laborers employed in the "La Emperatriz" cigarette factory struck for the same reason as those in the "La Germinal." The manager agreed to stick to the old scale except in the case of one brand of cigars. The laborers therefore returned to work after having been out 12 days.

On October 5, 1914, 16 of the regular laborers in the "El Siglo" cap and hat factory, Manila, struck because there was only enough work for them for three days a week. After six days the strike was settled by agreeing to give work every day to 12 of the laborers.

On October 15, 1914, laborers employed in the "La Flor de Fidela" cigar factory, Manila, struck because the manager attempted to

reduce the wages. They returned to work after 12 days at the old scale, with no reduction in wages.

On October 30, 1915, laborers employed in the "Helios" cigar factory, Manila, struck for an increase in wages. The strike lasted 33 days, after which some of the laborers returned to work and others went to other factories.

On December 23, 1914, laborers employed in the "La Minerva" cigar factory, Manila, struck when their demand that a fellow laborer who had been discharged be taken back was not complied with. The strike lasted five days.

The number of employees involved in the above strikes was 1,017, most of whom were laborers in the cigar factories.

EFFECT OF THE EUROPEAN WAR.

By September 1, 1914, out of 44,926 laborers employed in the different commercial and industrial establishments, the number dismissed due to the European war was 1,448. By October 1, 1914, there were 45,861 laborers employed in such establishments, making an increase of 935 over the number employed before the war, so that it will be seen that the laboring classes have not been very much affected by the war in Europe.

CORPORATIONS.

The number of licenses issued to foreign corporations and the number of articles of incorporation and other documents filed by the division of archives, patents, copyrights, and trade-marks of the executive bureau for the year ending December 31, 1914, are as follows:

Licenses issued to foreign corporations.....	10
Articles of incorporation of domestic stock corporations.....	76
Articles of incorporation of domestic nonstock corporations.....	22
Articles of incorporation of religious corporations.....	3
Certificates of increase of capital stock.....	11
Amendments to articles of incorporation.....	20
By-laws.....	84
Amended by-laws.....	15

The fees collected for the issuance of the licenses and filing the above documents amounted to ₱7,618.

IRRIGATION COUNCIL.

Six meetings of the irrigation council were held during the year 1914 to consider applications for water rights. The disposition made of the applications presented to the council was as follows:

Applications carried over from the preceding year.....	7
Applications brought before the council this year.....	208
Applications approved.....	106
Applications rejected.....	5
Applications pending further action.....	104

Respectfully submitted.

CLINTON L. RIGGS,
Secretary of Commerce and Police.

To the PHILIPPINE COMMISSION.

REPORT OF THE SECRETARY OF FINANCE AND JUSTICE.

SIX MONTHS ENDING DECEMBER 31, 1913.

DEPARTMENT OF FINANCE AND JUSTICE,
Manila, August 1, 1914.

SIRS: I have the honor to submit for your consideration the following report of the work performed during the period from July 1 to December 31, 1913, by the judiciary and the various bureaus under the executive control of the department of finance and justice. This report, unless otherwise stated, will cover only the six months ended December 31, 1913.

The undersigned assumed charge of the department on November 1, 1913, relieving the Hon. Gregorio Araneta, who had resigned from the office of secretary of finance and justice of these islands.

I shall review the work of the department under the headings of the general bureaus, beginning with the judiciary.

I.—JUDICIARY.

SUPREME COURT.

The condition of the docket of the supreme court is satisfactory. There were filed during the period July 1 to December 31, 1913, 269 civil and 285 criminal cases, a total of 554, as against 500 civil and 488 criminal cases filed during the fiscal year ending June 30, 1913. There were decided 205 civil and 273 criminal cases, a total of 478, as against 289 civil and 529 criminal cases, a total of 818, for the fiscal year 1913. One hundred and thirty cases were otherwise disposed of, of which 79 were civil and 51 were criminal, as compared with 161 cases, 73 civil and 88 criminal, for the preceding 12 months ending June 30, 1913.

On December 31, 1913, there were 959 cases pending, of which 627 were civil and 332 were criminal, compared with 1,013 cases pending on June 30, 1913, of which 642 were civil and 371 were criminal. (Of the cases pending at the end of the calendar year 1913, 483 were submitted but no decision rendered, and 476 were not yet ready for hearing on account of briefs not having been filed.)

One hundred and twenty-three candidates for admission to the bar were examined during the period under consideration, as compared with 247 for the fiscal year 1913. Twenty-two passed the examination, as against 95 for the preceding 12 months.

The total amount of fines, fees, and costs collected by the court during the last six months of 1913 was ₱7,328.72, as compared with ₱13,973.49 for the fiscal year ending June 30, 1913.

COURT OF FIRST INSTANCE OF MANILA.

During the period July 1 to December 31, 1913, 622 civil cases, including probate and guardianship, were filed and 523 were disposed of, as compared with 1,080 filed and 823 disposed of during the preceding fiscal year, or approximately six-tenths of the number of cases filed during that year. There remained at the close of the year 1,821 civil cases, as against 1,722 pending on July 1, 1913. In the criminal branch 744 new cases were filed, as against 1,589 during the previous fiscal year, and 844 disposed of, as against 1,471 during the preceding year; there remaining, therefore, 86 criminal cases at the close of the year 1913, as against 186 pending on July 1, 1913.

There were 5 customs-appeal cases pending on July 1, 1913, and during the six months covered by this report 12 were filed and 7 disposed of, leaving 10 cases pending at the end of the year.

The above figures show an increase in the number of cases filed, both civil and criminal, and a great number pending at the close of the year, notwithstanding there were comparatively more cases disposed of than during the same length of time in the fiscal year 1913. Experience has demonstrated that three judges, and occasionally one of the formerly-called "judges-at-large," sitting on the bench of Manila were not sufficient to keep up to date the docket of that court. It is hoped, however, that the increase in the number of judges provided for by Act No. 2347, which took effect July 1, 1914, will in a large measure tend to remedy this condition.

The total collections made by the court of first instance of Manila amounted to ₱42,457.90, as against ₱81,752.78 during the preceding fiscal year.

COURTS OF FIRST INSTANCE IN THE PROVINCES.

In the provincial courts during the last six months of 1913, 1,834 ordinary civil and 442 probate cases were filed, as compared with 3,229 ordinary civil and 661 probate cases filed in the same courts during the preceding fiscal year. One thousand one hundred and ninety-one of the total number of civil cases pending at the beginning of the six months and filed during that time were decided and 1,115 were dismissed, as against 1,985 civil cases decided and 1,571 dismissed during the fiscal year 1913. There were pending at the close of the year 2,906 ordinary civil and 2,655 probate cases, a total of 5,561, as compared with 3,072 ordinary civil and 2,519 probate cases, a total of 5,591 civil cases pending on July 1, 1913.

There were also filed during the six months in the same courts 4,421 criminal cases, or approximately 55 per cent of the total number of criminal cases filed during the preceding fiscal year, which was 8,006. Of these cases and those pending at the beginning of the six months, 2,635 were decided and 2,209 were dismissed, as compared with 4,318 criminal cases decided and 3,320 dismissed during the preceding fiscal year. Two thousand two hundred and eighty-nine criminal cases were pending on the calendars of the various provincial courts on December 31, 1913, as compared with 2,712 cases pending on July 1, 1913, which is a reduction of a little more than 15 per cent from the number of criminal cases pending at the end of the previous fiscal year.

The above figures show that the increase in the work of the courts of first instance in the provinces noted during the past years has progressively continued during the period under consideration, which demonstrates the need for more judges, in order that judicial matters may be promptly dispatched. In this connection it is gratifying to mention that the Philippine Legislature, recognizing this need, passed at its last session Act No. 2347, reorganizing the judicial districts and providing for more judges, which legislation, it is expected with good reasons, will greatly improve the condition of business in the courts of first instance. Another important piece of legislation in line with the prompt settlement of probate cases is Act No. 2331, which permits the judge in settling estates of small value to proceed summarily without the appointment of an executor or administrator or a committee to appraise the estate or allow claims against it when the amount of the estate does not exceed ₱3,000.

The collections made by the courts of first instance in the provinces during the period covered by this report amounted to ₱78,789.51, as compared with ₱156,538.17 in the fiscal year 1913.

COURT OF LAND REGISTRATION.

The following table is a summary of the work of the court of land registration during the six months covered by this report:

Number of applications filed.....	619
Total number of cases disposed of.....	399
Appeals taken to supreme court.....	19
Total cases published in Gazette.....	452
Total number of cases in which decrees issued.....	373
Total number of decrees issued.....	3,227
Total number of parcels covered by decrees.....	3,909
Total area decreed (square meters).....	555,106.584
Total reservations instituted:	
Civil.....	18
Military.....	1
Receipts.....	₱32,582.56
Total costs of publication, Official Gazette.....	10,770.20
Approximate total expense of the court.....	97,281.20
Approximate value of properties.....	8,287,997.20

Applications presented to this court may be considered under three headings, as follows, filed under the provisions of:

Act No. 496 (voluntary).....	585
Section 61, Act No. 926 (public land act).....	17
Act No. 2259 (cadastral act).....	17
Total.....	619

These figures show a marked increase in the business of the court during the period under consideration, 930 applications only having been filed for the full period of fiscal year 1913. Act No. 2259 (cadastral act) is now effective in a number of the principal provinces and municipalities, and as the cost of proceedings under said act is only a fraction of the costs under Act No. 496, private individuals who are not in immediate need of titles are waiting until their lands can be registered under the cadastral act.

The business transacted by the court of land registration during the period July 1 to December 31, 1913, and also the status of all cases filed to June 30, 1913, is shown by the following table:

	Confirmed.	Denied.	Dismissed.	Total.
Final disposition.....	255	8	9	272
Decided, but subject to appeal.....	98	6	5	109
Appealed to supreme court.....	13		5	18
Total business for period.....	366	14	19	399
Previous appeals pending.....	70	9	4	83
Prior final disposition made.....	7,547	292	654	8,493
Total business transacted.....	7,983	315	677	8,975
Pending on dockets.....				822
Total cases, Dec. 31, 1913.....				9,797

During the period above mentioned final decrees were issued in 373 cases, there being 3,227 decrees, involving 3,909 parcels, and embracing an area of 555,106,584 square meters. While the number of cases decreed during the past six months is less than one-half the number decreed during the whole of the fiscal year 1913, the number of decrees issued, as well as the area and number of parcels involved, is far in excess of 50 per cent over the figures for the whole of last fiscal year. The decrees issued average 124 a week, or a little over 20 for each working day. These results are attributed directly to cadastral proceedings.

A summary of the work, since the organization of the court, in respect to number of parcels and area registered, is as follows:

Fiscal year.	Cases.	Parcels.	Area.
			<i>Square meters.</i>
1903.....	19	19	32,026
1904.....	178	186	287,377,677
1905.....	339	357	66,358,448
1906.....	436	520	34,929,686
1907.....	598	728	342,013,921
1908.....	729	1,057	416,898,596
1909.....	896	1,255	285,636,213
1910.....	707	1,178	663,052,931
1911.....	1,203	3,080	821,933,207
1912.....	1,252	2,575	470,479,164
1913.....	845	5,260	783,767,795
July 1 to Dec. 31, 1913.....	373	3,909	555,106,584
Total.....	7,575	20,124	4,730,586,248

Nineteen reservation proceedings were instituted during the past six months, 18 of which were civil reservations containing 24 parcels with an area of 14,963,236 square meters; one military reservation, containing one parcel, with an area of 115,284 square meters.

The registration of city properties has been relatively the same as in previous years, considering the number of cases, but the values of the properties involved are greater, in proportion to the time, than last year, and are as follows:

Fiscal year.	Cases.	Valuation.	Fiscal year.	Cases.	Valuation.
Manila:			Provinces:		
1913.....	214	P4,951,265.00	1913.....	716	P16,863,215.72
1914.....	104	3,834,598.98	1914.....	515	4,453,398.22

The values of the properties in 29 cases filed during the last six months are not known, 19 of which are cadastral cases and 3 cases filed under the provisions of section 61, Act No. 926, all of which cover large areas. Therefore the values given in the above statement would be materially increased if these cases could be included.

The receipts of the court, as well as the applications filed, show an increase over the fiscal year 1913, considering that this report covers only one-half year. The apparent decrease in the value of the properties involved is due to the fact stated above, i. e., that the values of 29 cases are not known, therefore not included in the totals. A comparative statement of the business for the last six months, relative to receipts, and that of the preceding fiscal year, follows:

Fiscal year 1913:		July 1 to Dec. 31, 1913:	
Cases filed -----	930	Cases filed -----	619
Receipts -----	₱49,484.13	Receipts -----	₱32,582.56
Valuation -----	₱21,814,480.72	Valuation -----	₱3,287,997.20

JUSTICE OF THE PEACE COURTS.

The reports submitted by the judges of the courts of first instance regarding the work of justice of the peace courts in their respective districts show that during the period July 1 to December 31, 1913, there were filed 29,802 criminal and 5,767 civil cases, as against 72,239 and 16,794 cases, respectively, filed during the period July 1, 1912, to June 30, 1913, showing a large decrease in the number of cases filed during the period under consideration. There were decided 27,223 criminal and 4,099 civil cases, a total of 31,322 cases, as against 64,569 criminal and 12,465 civil cases, a total of 77,034 cases, for the fiscal year 1913. Four thousand four hundred and twenty-one cases were otherwise disposed of, of which 2,682 were criminal and 1,739 were civil, as compared with 12,145 cases, 7,719 criminal and 4,426 civil cases, for the fiscal year 1913.

At the close of the year there were 4,474 cases pending, of which 3,965 were criminal and 509 were civil, compared with 5,855 cases pending on July 1, 1913, of which 5,139 were criminal and 716 were civil.

The amount of costs, fines, and fees collected during the last six months of 1913 was ₱149,848.03, against ₱353,575.05 during the fiscal year 1913.

The above figures do not cover the business of these courts in some provinces of the archipelago, for the reason that it has not been possible to secure accurate reports of the work of justices of the peace, owing principally to frequent changes in the personnel of the courts and their lack of familiarity with the preparation of statistics.

II.—BUREAU OF JUSTICE.

PERSONNEL.

On December 16, 1913, the Hon. Ignacio Villamor was promoted from the position of attorney general to that of executive secretary, and the Hon. George R. Harvey, solicitor general, was designated as attorney general, in which capacity he acted from that date until the beginning of the year 1914, when he was relieved by the Hon. Ramon Avanceña, former judge of the court of first instance of the

twelfth judicial district, who was appointed to fill the office of attorney general of these islands. With the exception of the appointments of Alva J. Hill and Roman Lacson to the vacancies in the positions of assistant attorneys no other changes took place in the legal staff of the bureau of justice during the period covered by this report.

The legal work performed by the bureau of justice during the last half of 1913, as compared with the fiscal year 1913, is shown in condensed form in the following manner:

	Fiscal year 1913.	July 1 to Dec. 31, 1913.
Cases in the supreme court in which briefs and arguments were presented.....	639	343
Cases in the supreme court in which the bureau of justice appeared by motion.....	75	53
Cases in the court of land registration in which the bureau of justice appeared and opposed registration.....	445	154
Cases in the court of land registration examined, but no opposition presented.....	489	222
Civil cases conducted in the courts of first instance.....	192	63
Written opinions rendered by the attorney general to the chief executive, heads of the four departments, chiefs of bureaus, and other officials.....	200	183

The above statement of work performed by the bureau of justice during the six months ending December 31, 1913, when compared with the report of similar duties performed during the preceding fiscal year shows a slight increase of cases handled in the supreme court, with a very decided reduction in court of land registration cases receiving the attention of this office. There has also been a considerable increase in the number of opinions rendered, the same being 183 opinions rendered during the six months, as against 200 opinions written in the bureau during the preceding fiscal year.

The expenditures of the bureau of justice during the six months covered by this report, including the sum of ₱22,524.83 set aside on account of accrued leave adjustment, amounted to ₱99,749.12.

III.—BUREAU OF THE TREASURY.

FINANCIAL STATEMENT.

The following statement shows the balances on hand at the close of the fiscal period July 1 to December 31, 1913, the receipts, withdrawals, and currency exchanges during the fiscal period under consideration, and the balances on hand at the close of business on December 31, 1913:

General funds:

Balance on hand at close of business June 30, 1913..... ₱23, 783, 872. 88
Receipts for fiscal period July 1 to Dec.

31, 1913, account of—

Cash deposits, all sources..... ₱23, 349, 355. 15

Currency exchanges..... 32, 453, 342. 12

60, 802, 697. 27

Total.....

84, 586, 570. 15

Withdrawals for fiscal period July 1 to Dec.

31, 1913, account of—

Warrants paid..... 34, 337, 807. 58

Currency exchanges..... 32, 453, 342. 12

66, 791, 149. 70

Balance on hand Dec. 31, 1913.....

17, 795, 420. 45

Depository accounts:

Balance on hand at close of business June 30, 1913.....	₱7, 634, 383. 52
Deposits during fiscal period July 1 to Dec. 31, 1913.....	65, 373, 640. 49
Total.....	73, 008, 024. 01
Withdrawals during fiscal period July 1 to Dec. 31, 1913.....	61, 925, 488. 77

Balance on hand Dec. 31, 1913..... ₱11, 082, 535. 24

Silver certificate reserve account:

Balance on hand at close of business June 30, 1913.....	31, 568, 431. 00
Certificates issued during fiscal period July 1 to Dec. 31, 1913.....	2, 140, 000. 00
Total.....	33, 708, 431. 00
Certificates retired during fiscal period July 1 to Dec. 31, 1913.....	3, 662, 861. 00

Balance Dec. 31, 1913..... 30, 045, 570. 00

Total of funds for which insular treasurer was accountable at close of business Dec. 31, 1913.... 53, 923, 525. 69

This balance was distributed as follows:

	United States currency.	Philippine currency.	Philippine currency.
In Treasury vaults.....	\$816, 918. 72	₱37, 414, 861. 74	
On deposit with local banks on open account.....		2, 176, 279. 16	
Time deposits with local banks.....		1, 147, 891. 69	
On deposit with authorized depositories in the United States.....	8, 275, 327. 83		
Total.....	9, 092, 246. 55	40, 439, 032. 59	₱58, 923, 525. 69

The "general funds" balance of ₱17,795,420.45 in the foregoing statement includes the balances of various trust funds, and is made up as follows:

Gold-standard fund.....	₱10, 444, 271. 92
Friar-lands bonds sinking fund, Act. No. 1749.....	637, 465. 14
Manila sewer and waterworks bonds sinking fund, Act No. 1323.....	(94, 007. 93)
Money-order fund.....	1, 136, 007. 90
Constabulary pension and retirement fund, Act No. 1638.....	15, 198. 05
Assurance fund, Act No. 496.....	23, 111. 34
Insular insurance fund, Act No. 1728.....	226, 105. 43
Fidelity bond premium fund.....	51, 498. 32
Public works and permanent improvement bonds sinking fund, Act No. 1729.....	158, 233. 95
Postal savings bank fund.....	(29, 523. 36)
Insurance fund, city of Manila.....	17, 403. 70
Cebu waterworks bonds sinking fund, Act No. 2009.....	4, 842. 50
General fund.....	5, 204, 813. 49
Total.....	17, 795, 420. 45

The "depository balance" of ₱11,082,535.24 in the same statement includes the following accounts:

Agricultural Bank.....	₱568, 075. 80
Burnham memorial fund.....	4, 000. 00
Cavite electric-light franchise, section 2, Act No. 667.....	1, 000. 00
Fourth of July fund.....	5, 002. 64
Insular disbursing officers.....	51, 170. 08

Memorial-monument fund, Act No. 1840-----	₱255. 52
Treasurer of the United States-----	3, 225, 204. 98
Trust funds, sec. 11, Act No. 1510-----	51, 091. 26
United States disbursing officers-----	7, 165, 771. 66
Marinos Mercantes in liquidation-----	10. 77
Overage account-----	125. 83
Memorial-Day fund-----	271. 95
Antituberculosis society-----	10, 554. 77
Total-----	11, 082, 535. 24

The "certificate reserve fund" balance of ₱30,045,570 in the statement consists of silver pesos held in the treasury against which have been issued an equivalent amount of silver certificates.

The sum of ₱2,176,279.16, shown in the statement distribution of funds as an open account with local banks, pertains entirely to the general fund of the treasury. This is a working balance subject to withdrawal at any time. The fixed or time deposits of ₱1,147,891.69 with local banks, appearing in the same statement, draw interest at the rate of $3\frac{1}{2}$ per cent per annum, and pertain to the following funds:

General fund-----	₱1, 100, 000. 00
Fidelity deposits, sec. 11, Act No. 1510-----	46, 652. 72
Conservatory of music fund-----	1, 238. 97
Total-----	1, 147, 891. 69

In addition to the foregoing time deposits carried in the insular treasurer's cash accountability, there is on time deposit with local banks the sum of ₱1,488,000 pertaining to the treasurer's investment accountability. There is also on fixed deposit with these banks the sum of ₱5,629,500, provincial and municipal funds, for which the bureau is not accountable. The total time or fixed deposits with local banks therefore amounts to ₱8,265,391.69, all of which draws interest at the rate of $3\frac{1}{2}$ per cent per annum.

The amount with authorized depositories in the United States, \$8,275,327.83, consists of the following funds:

Gold-standard funds-----	\$6, 944, 540. 18
General fund-----	1, 330, 787. 65
Total-----	8, 275, 327. 83

Of the foregoing amount, \$7,711,048.30 draws interest at the rate of 3 per cent and the remainder at the rate of $2\frac{1}{2}$ per cent per annum. The \$7,711,048.30 on which interest at the rate of 3 per cent is received is on open account and is divided amongst 13 depositories. It is understood between the government and each of these depositories that this money is to remain undisturbed unless 30 days' notice that same is to be withdrawn be given the depository. This understanding, however, is not an obligation, and in case of emergency these deposits may be withdrawn without previous notification.

FIDELITY BOND PREMIUM FUND.

During the fiscal period under consideration shortages were paid amounting to ₱21,854.08. This fund, which on January 1, 1908, originated with a capital of ₱122,553.14, amounted on December 31, 1913, to ₱518,902.42, showing a gain of ₱396,349.28 after deducting all losses paid during the six years of the fund's existence. It is

believed that its annual earnings will be more than sufficient to meet any defalcations likely to occur.

Based on the total amount of bonds in effect and on the annual rate charged by the official surety companies prior to the inauguration of the present system, the government would have paid said companies during the past six years approximately ₱474,550, while the total losses certified and paid from the fidelity bond premium fund during that period amounted to ₱103,662.34.

From January 1, 1908, to December 31, 1911, the fund charged a premium of 1 per cent for bonds executed, and on January 1, 1912, the rate was reduced to three-fourths of 1 per cent. A further reduction was made on July 1, 1912, and the rate in effect during the fiscal half-year under consideration has been one-half of 1 per cent.

The total amount of bonds in effect on December 31, 1913, was ₱8,910,650, and the cost of administration during the half year was less than ₱2,350. This cost, as in previous years, has been borne by the appropriation for the treasury bureau.

BANKS AND BANKING.

Agricultural Bank.—The amount loaned by the bank during the fiscal period under consideration was greater than that loaned during the entire preceding fiscal year, the figures being ₱1,147,920 and ₱1,028,650, respectively. The number of applications was 172, and the number of loans made was 147. Eleven loans, amounting to ₱27,600, were repaid, making the number of loans entirely repaid and partial payments of interest amount to 49 and ₱165,203. No foreclosure proceedings were instituted during this period.

At the close of the six months under consideration there were outstanding loans amounting to ₱2,742,970. The profit and loss account on December 31, 1913, showed the net profits to be ₱102,940.48, as compared with ₱95,410.45 for the entire previous fiscal year, making the total surplus of net profits at the close of the fiscal period ₱314,254.16. The expenses of the bank for the six months ending December 31, 1913, were ₱10,569.18, being slightly in excess of those for the same period of the preceding year. The increased expenses are fully explained by the bank's increased business during the six months under consideration.

Private banks.—During the fiscal half year the following institutions were examined by deputies of the insular treasury: The Bank of the Philippine Islands, Manila, and its Iloilo, Zamboanga, and Jolo branches; and "El Hogar Filipino."

A comparative consolidated statement of the resources and liabilities of all the commercial banks in the Philippine Islands at the close of business on June 30 of the fiscal year 1913 and for the six months ending December 31, 1913, shows the following:

	June 30, 1913.	Dec. 31, 1913.	Increase.	Decrease.
Total resources.....	₱67,401,192.95	₱63,745,929.22	.....	₱3,657,263.73
Loans and discounts.....	11,653,880.07	9,591,993.41	.....	2,061,886.66
Overdrafts.....	24,503,305.11	24,375,639.62	.....	127,665.49
Current accounts.....	15,025,675.38	13,057,169.76	.....	1,968,505.62
Fixed deposits.....	12,015,607.66	14,370,101.29	₱2,354,493.63	.....

The Monte de Piedad and Savings Bank is not included in the foregoing statement.

GUARANTY OF INTEREST ON BOND ISSUES OF RAILWAY CORPORATIONS.

Under authority of an act of Congress, approved February 6, 1905, the insular government guarantees 4 per cent interest for a period not to exceed 30 years on the first-lien bonds issued by the Philippine Railway Co. for the construction of certain lines in the islands of Panay and Cebu. Under the same authority and like conditions interest is also guaranteed on the 4 per cent first-lien bonds of what are known as the southern lines of the Manila Railroad Co. During the fiscal period July 1 to December 31, 1913, bonds to the par value value of \$774,000 were issued by the latter company.

The combined issues of both companies on December 31, 1913, totaled \$15,628,000 United States currency, and the annual liability of the insular government under its guaranty amounts to \$625,120 United States currency.

BOND ISSUES.

The total bonded indebtedness of the insular and municipal governments of the Philippine Islands at the close of the fiscal period July 1 to December 31, 1913, was as follows: Friar-lands bonds, ₱14,000,000; public works and permanent improvement bonds, ₱10,000,000; city of Manila sewer and waterworks construction bonds, ₱8,000,000; city of Cebu bonds, ₱250,000; grand total, ₱32,250,000. This is the same amount of bonded indebtedness of the insular and municipal governments of these islands on June 30, 1913.

GOLD-STANDARD FUND.

The unit of value in the Philippine Islands is a theoretical gold peso, containing 12.9 grains of gold 900 fine, equivalent to one-half of the gold dollar, the unit of value in the United States. The circulating medium of the Philippine Islands is a silver peso, containing 308.64 grains of silver 800 fine. For the purpose of maintaining the silver peso on a parity with the gold peso a gold-standard or gold-reserve fund was created. This fund has been fixed by Act No. 2083 of the Philippine Legislature in a sum equivalent to 35 per cent of the money of the government of the Philippine Islands in circulation or available for that purpose, which act also provides that any excess in the fund over this percentage shall be transferred from the gold-standard fund to the general fund of the treasury and made available for appropriation. Under this provision the surplus of ₱570,154.36 which accumulated during the six months ended December 31, 1913, has been transferred to the general fund, making the total amount of surplus thus transferred since the passage of said act ₱4,856,720.05. Act No. 2083 further authorizes the loaning of the investment portion of this fund, under certain conditions, to provinces and municipalities for public works and public improvements, and to the Manila Railroad Co. for the purpose of completing certain sections of new lines of railroad. Under these conditions ₱3,746,876 of the fund have been loaned to provinces and municipalities and ₱3,900,000 to the Manila Railroad Co.

The amount of exchange on New York sold through the fund during the six months was ₱17,312,578.56, as compared with ₱9,361,894.46 for the six months ending December 31, 1912.

The net income from all sources was ₱603,269.89, showing a decided increase over the previous fiscal year.

CIRCULATION.

The total exports of Spanish-Filipino and Mexican currency, both by the government and commercially, during the period July 1, 1903, to December 31, 1913, amounted to Pfs. 33,683,558.30. It is estimated that Pfs. 350,000 still remain in the islands.

The recoinage of the silver currency of the first issue is progressing satisfactorily. During the period under consideration ₱105,000 was withdrawn from circulation and forwarded to the San Francisco Mint for recoinage. The total silver coinage of the first issue received was ₱32,779,281.80. Of this ₱30,208,101.20 was returned to the mint for recoinage, leaving a balance in circulation of ₱2,571,180.60.

The total silver coinage of the present authorized weight and fineness received from the United States mint amounts to ₱50,234,845.57. Silver certificates to the amount of ₱30,045,570 were in circulation, and ₱22,657,861 were in the treasury vaults on December 31, 1913.

The total amount of bank notes issued by the insular treasurer to the Bank of the Philippine Islands for circulation amount to ₱5,328,492.50.

The total amount of money in circulation at the close of the fiscal period was ₱50,697,252.78. Based on the census of 1903, which gave the population of the islands at 7,635,426, the per capita circulation of the islands on December 31, 1913, was ₱6.64.

THE EARTHQUAKE FUND OF 1863.

For the relief of those damaged by the earthquake which took place in the Philippine Islands on June 3, 1863, certain moneys were subscribed and paid into the treasury of the Philippine Islands by the Queen of Spain and various other subscribers throughout the Spanish dominions.

A central relief board was appointed by royal order, dated October 6, 1863, to distribute this fund, and on September 22, 1866, said relief board allotted a portion of this fund to various sufferers, a list of which, together with the amounts allotted, was published in the *Gaceta de Manila* dated April 7, 1870.

It appears that the amounts allotted were not paid to the persons entitled thereto, and in the year 1883 the government of the Philippine Islands deposited in the Monte de Piedad of Manila the sum of ₱80,000 gold pertaining to this fund.

Certain persons, and the heirs of others, whose allotments had not been paid petitioned the present government of the Philippine Islands for payment and the Philippine Legislature, by Act No. 2109, directed the treasurer of the Philippine Islands to bring suit to recover from the Monte de Piedad all funds, together with interest thereon, deposited by the Spanish Government in the Monte de Piedad pertaining to this fund. It further directed that all sums recovered in accordance with the provisions of the act referred to shall be kept as a special fund for the benefit of those persons damaged, or the heirs of such persons, who have not yet received the amounts allotted them, and to distribute the amount recovered to said persons or their heirs, executors, etc., pro rata.

Complaint was filed by the attorney general, representing the insular treasurer, on May 3, 1912, to which complaint the defendant

demurred. This demurrer was dismissed by the court of first instance on December 17, 1912. On January 2, 1913, the defendant filed an answer denying the allegations of the complaint. On November 7, 21, and 25, 1913, the case was heard before the court of first instance, and on February 19, 1914, judgment was rendered in favor of the plaintiff. From this judgment the defendant took an appeal to the supreme court, and the case is now pending decision by the court.

IV.—BUREAU OF CUSTOMS.

CHANGE IN PERSONNEL.

The following change in the personnel appointed by the Governor General has occurred since the last annual report:

Dr. Bernard Herstein, of New York, was appointed insular collector of customs November 4, 1913, vice Mr. Henry B. McCoy, resigned.

GENERAL TRADE CONDITIONS.

The total value of the commerce between the islands and other countries during the period July 1 to December 31, 1913, amounting to ₱104,373,646, as compared with ₱122,223,880 for the last six months of 1912, sustained a decrease of ₱17,850,234. Imports amounted to ₱56,077,896, as compared with ₱62,107,390 for the like period during the previous year. The diminution is accounted for by the reduction of rice importations from ₱12,901,024 in 1912 to ₱3,348,492 in 1913. The total exports reached the sum of ₱48,295,750, as against ₱60,116,490 in 1912. The decrease in exports is largely due to the effect of the droughts and typhoons of 1912 on our principal products. Shipments of hemp fell off with a decrease of ₱3,847,320 in the total value of hemp exported. The exportations of copra to the United States in the last six months of 1913 have been almost doubled, while the value of this product exported to other countries in the same period dropped from ₱13,497,682 in 1912 to ₱8,335,658 in 1913. The values of sugar and manufactured tobacco exported to the United States have also sustained a considerable decrease, although the exportations of these products to foreign countries were practically the same for the two periods, there being a slight increase during the preceding year in the shipments of tobacco. The exportations of cigars and cigarettes to the United States showed also a large decrease, while a slight increase is noted in the shipments of the same to foreign countries. Somewhat increased prices of hemp and copra compensated in some measure for the decrease in exportations of these staples.

Forty-four per cent of the total trade of the islands during the last six months of the calendar year 1913 was with the United States, as compared with 41 per cent for the same period of 1912, which is an evidence of the constantly increasing trade between the two countries noted in previous reports.

The comparisons above made of imports and exports between periods of but one-half year's duration are not, however, free from defect as would be desired, for the obvious reason that radical increases or decreases that the figures for a half year show may partially or wholly disappear when the comparison is for an entire year.

IMPORTS.

Cotton goods head the list of imports this year, with the value of ₱12,432,994, as compared with ₱11,867,084 for the six months of the previous year. The value of this staple imported from the United States during the period covered by this report was ₱7,437,562, an increase of ₱359,958 over 1912; and importations of this class of merchandise were made from foreign countries to the value of ₱4,995,432, against ₱4,789,480 for 1912.

Machinery and other iron and steel rank second among imported articles, the value of the importations of the same having increased from ₱6,483,876 in 1912 to ₱10,493,856 in 1913. The importations of machinery from the United States were valued at ₱2,303,908, which, compared with ₱1,461,738 for 1912, shows a gain of ₱842,170, or 58 per cent. An even larger increase is shown in the importations of machinery from foreign countries, the value for 1913 being ₱1,687,742, while that for 1912 was ₱970,546. The value of the other iron and steel imported from the United States was ₱5,135,556, which is ₱2,282,632 greater than the value of similar articles imported from that country during the latter half of 1912. Like importations from other countries were valued at ₱1,366,650, a slight increase over the same period of 1912, when the value reached ₱1,198,668.

Owing to the increased production of rice in the islands during the year 1913 this commodity, which in former years stood either first or second among our imports, has been relegated to third place, the value of importations of the same having dropped from ₱12,901,024 in 1912 to ₱3,348,492 in 1913, or a decrease of ₱9,552,532.

Importations of milk, condensed and fresh, rose from ₱851,178 in 1912 to ₱1,016,788 in 1913.

The United States continues at the head of the list of countries sending merchandise to these islands, with imports of ₱28,652,396, as compared with ₱26,074,044 for the like period in 1912, an increase of ₱2,578,352; while the total imports from foreign countries dropped from ₱36,033,346 to ₱27,425,500. Next comes the United Kingdom with imports of ₱5,152,080, as compared with ₱5,715,762 in 1912. Japan takes third place, with imports to the value of ₱3,936,024. Germany follows with ₱3,323,696, forcing French East Indies from second in previous years to fifth place, imports from this latter country being reduced from ₱11,064,756 during the six months of 1912 to ₱2,998,982 for the like period in 1913; then comes Australasia, France, Spain, Hawaii, Switzerland, and British East Indies in the order named.

EXPORTS.

Hemp continues at the head of our exports. The total shipments of hemp for the last six months of 1913 were valued at ₱21,261,284, compared with ₱25,108,604 in 1912, a decrease of ₱3,847,320. The value of exportations of this staple to the United States dropped from ₱13,047,674 to ₱9,394,220, and those to other countries from ₱12,060,930 to ₱11,867,064. Of this latter amount ₱8,400,492 worth of hemp was exported to the United Kingdom, as compared with ₱8,499,626 in 1912.

Copra was exported to the value of ₱10,240,342, compared with ₱14,444,690 in 1912. While the value of copra exported to other countries dropped from ₱13,497,682 in 1912 to ₱8,335,658 during the last six months of 1913, the exportation of this commodity to the United States has increased approximately 100 per cent, ₱1,904,684 worth of copra having been exported to that country in the same period, against ₱947,008 in 1912. Exportations of this article to France, which has been for years the greatest consumer of our copra, dropped from ₱8,735,426 in 1912 to ₱4,623,650 in 1913.

The exportation of sugar during the last six months of 1913 amounted to 65,383,183 kilos, valued at ₱5,994,422, compared with 120,589,939 kilos, valued at ₱10,911,724 in 1912. Shipments of sugar to the United States were ₱4,851,258 less than in 1912. The value of exportations of this product to foreign countries was practically the same for the two periods—₱3,846,298 worth having been shipped in the last half of 1912 and ₱3,780,254 in 1913. Of this latter figure, ₱1,607,392 represents the amount of sugar exported to Japan, as compared with ₱1,146,376 in 1912. The diminished exportation of this product to the United States was due rather to the lack of demand than to the short supply, the price paid for it being extremely low owing to the competition with sugar from Hawaii, Cuba, and Porto Rico.

There is a decrease in the value of manufactured tobacco exported to the United States. In 1913 the value was ₱1,248,686, while in 1912 it was ₱2,184,388. Exportations of this commodity to foreign countries show a slight increase over the preceding year, having been valued in 1913, during the period covered by this report, at ₱1,351,176, compared with ₱1,121,218 in 1912.

The increase in the exportation of cigars to the United States noted in the years 1910, 1911, and 1912 has not continued during the period under consideration. During the six months covered by this report 25,065,223 cigars were shipped to the United States, approximately one-half the number shipped during the like period of 1912, which was 49,984,354. The shipment to other countries increased from 46,332,759 to 55,618,143.

Exportations of cigarettes to the United States during this period also showed a large decrease, 4,284,900 having been shipped in 1913 and 9,228,500 in 1912. A slight increase appears in the exportation of this product to foreign countries.

Exports other than those already mentioned were valued at ₱5,591,236, as compared with ₱3,572,606 in 1912. Of the first amount, ₱2,782,774 represents the trade with the United States, as compared with ₱1,060,054 for the last six months of 1912. Among these miscellaneous items of exports the largest is coconut oil, which made a remarkable progress during the period covered by this report, exportations having increased from ₱80 in 1912 to ₱1,667,732 in 1913. Shipments of coconut oil to the United States amounted to ₱1,653,368. Then come knotted hemp, valued at ₱806,544; maguey, ₱486,308; shells, ₱400,832; native hats, ₱392,856; lumber and timber, ₱342,266; coconut cake, ₱219,150; pili nuts, ₱188,270; embroideries, ₱168,698; ilang-ilang, ₱74,520, etc.

The United States continues to occupy first place among the countries receiving goods from the Philippine Islands, the total amount exported to that country during the last six months of 1913 being

₱17,665,400, compared with ₱24,495,134 for the like period of 1912. The United Kingdom, with exportations to that country of ₱9,275,420, compared with ₱9,342,688 for the same period of 1912, retains second place, leaving France, as in the previous fiscal year of 1913, in third place, exportations to that country being reduced from ₱9,429,476 in 1912 to ₱5,142,840 in 1913. Japan continues occupying fourth place, exports to that country having increased from ₱3,357,518 in 1912 to ₱3,552,368 in 1913. Then follow in order Spain, Hongkong, Germany, British East Indies, and China.

CUSTOMS COLLECTIONS.

The total gross collections of the bureau during the last half of the calendar year 1913 from all sources were ₱6,807,053.24, as compared with ₱9,701,266.43 for the same period in 1912. The collections from import and export duties and wharfage were ₱6,553,315.83, being ₱2,889,765.93 less than in 1912. Import duties collected amounted to ₱5,689,642.77, a decrease of ₱1,994,772.29. The larger portion of this decrease was due to the falling off of rice importations, the import duty collected on rice alone being ₱1,844,294 less than in the preceding year. Export duties collected were ₱467,133.26, a decrease of ₱688,605.16. The collection of export duties ceased on October 4, 1913, this tax having been removed by the United States tariff act of 1913. Wharfage fees have also diminished from ₱602,928.28 in 1912 to ₱396,539.80 in 1913.

The foregoing figures represent all the receipts of the bureau, including the amount accruing to the government of the department of Mindanao and Sulu, the amount accruing to the credit of the appropriation of the bureau, salaries of bonded warehouse keepers, collections on account of extra services of employees, and collections subject to refund.

Of the above gross collections ₱6,333,509.09 accrued to the insular government and ₱224,166.20 to the department of Mindanao and Sulu, the latter having the benefit of customs collections at Zamboanga and Jolo.

FOREIGN CARRYING TRADE.

From July 1 to December 31, 1913, the total number of entrances and clearances of vessels engaged in foreign trade was 818, an increase of 32 over the corresponding period of the preceding year. The following table shows the distribution of the vessels under the various flags and their net tonnage:

Nationality.	1912.		1913.	
	Number.	Net tonnage.	Number.	Net tonnage.
American.....	18	163,404	33	218,636
British.....	406	874,726	417	921,550
French.....	11	13,276	2	1,994
German.....	133	267,758	107	251,136
Japanese.....	119	357,004	164	501,067
Norwegian.....	12	14,074	13	22,606
Philippine.....	69	56,279	67	58,132
Spanish.....	13	31,163	13	32,657
Swedish.....	3	8,896	2	6,882
Chinese.....	2	1,962	.....	.....
Total.....	786	1,788,542	818	2,014,660
Increase 1913.....	.....	.....	32	226,118

CONSULAR DUTIES.

The work performed by the insular collector of customs in his capacity as American consul under the provisions of section 84 of the act of Congress of July 1, 1902, involved the shipment of 447 American seamen, the discharge of 251, and the care of a number of destitute seamen. Of the latter, 2 were furnished board, and lodging and transportation to the United States secured for 18, at the expense of the State Department of the Federal Government.

COASTWISE SHIPPING.

A comparison of the two periods in 1913 and 1912 shows that the activity in coastwise shipping remained practically the same. Although the total number of vessels licensed at the port of Manila, where the bulk of the documentation is done, was slightly less than in 1912, the total tonnage was greater, due to the increased number of coastwise steamers and the decrease in harbor and lighterage craft.

Inspection.—During this period the officers of the hull and boiler division inspected 245 vessels, of which number 185 were steamers, 55 sailing vessels, and 5 motor boats. A total number of 99 vessels were admeasured, the majority of which were barges, scows, lighters, bancas, etc., engaged in lighterage and harbor business.

Marine officers.—At the close of the calendar year 1913 there were 970 marine officers, holding unexpired licenses and certificates of service, available for service on Philippine vessels. During the last six months of that year the board on Philippine marine examinations examined 107 applicants for marine licenses of all grades, of which number 87 qualified and 20 failed.

IMMIGRATION AND EMIGRATION.

During the six months ended December 31, 1913, immigrant aliens to the number of 1,762 and nonimmigrant aliens to the number of 3,292 were admitted to the Philippine Islands. During the same period 910 aliens departed without intention to return and 4,331 left the islands temporarily. One hundred and forty-two Americans and 172 Filipinos arrived from and 169 Americans and 188 Filipinos departed to foreign countries. Five hundred and eighty Filipinos and 1,895 Americans arrived from the United States and its possessions and 2,611 Filipinos and 1,565 Americans departed therefor. The aliens arriving from the United States numbered 51 and those departing for that country 146. The total number of persons arriving in the islands was 7,894, and 9,920 departed. One hundred and forty aliens seeking admission were debarred and 147 alien residents deported to the countries from whence they came, in accordance with law.

ARRASTRE AND PIERS.

From July 1 to December 31, 1913, 133,369 tons of cargo were handled by the Manila arrastre plant, a slight increase over 1912, when the tonnage handled was 132,197. The receipts from operation amounted to ₱111,548.84 and the expenditures were ₱111,192.62, of which amount ₱87,892.72 was for salaries and wages and ₱23,299.90 for contingent expenses.

PERSONNEL.

The total number of employees in the bureau was reduced during the six months covered by this report from 780 to 760, the reduction being equally divided between the Americans and Filipinos.

EXPENSE OF CONDUCTING THE BUREAU.

The total cost of the operations of the bureau during the six months was ₱563,753.19, of which amount ₱457,760.71 was expended for salaries and wages and ₱105,992.48 for contingent expenses.

V.—BUREAU OF INTERNAL REVENUE.

COLLECTIONS.

The following is a résumé of the collections made by the bureau of internal revenue during the period from July 1 to December 31, 1913:

Items.	1912	1913
Internal-revenue taxes.....	₱6,945,965.08	₱6,629,727.71
United States internal-revenue taxes.....	347,876.45	175,656.53
Opium taxes.....	46,071.44	42,852.65
Weights and measures taxes.....	45,988.03	62,720.72
Franchise taxes.....	108,143.14	114,949.44
Justice of the peace fines and fees.....	182,470.80	190,401.40
Sisiman matadero.....	37,575.90	17,771.33
San Lazaro estate rentals.....	25,037.97	27,396.78
San Lazaro estate court costs.....	7.24	240.92
Sales of public mineral lands.....	324.70	1,767.69
Subscriptions to publicity fund.....	6,949.62	3,559.14
Total.....	7,746,360.37	7,267,044.31
Municipal taxes, city of Manila.....	1,612,299.63	1,524,914.11
Grand total.....	9,358,660.00	8,791,958.42

From the foregoing table it will be seen that the amount collected during this period, as compared with a total collection during the same period of 1912, shows a decrease of ₱566,701.58, or about 6 per cent. The greatest falling off has been on the collections of taxes on domestic and imported distilled spirits, domestic manufactured tobacco, cigars and cigarettes, and merchants' and manufacturers' percentage tax, due to restrictions of credits by large merchants and manufacturers.

The following table shows the internal-revenue tax collections made during the period July 1 to December 31, 1913, and the increase or decrease as compared with the corresponding period of the preceding year:

Source	1912	1913	Increase.	Decrease.
Distilled spirits:				
Domestic.....	₱1,334,943.30	₱1,219,232.33		₱115,710.97
Imported.....	142,331.30	137,941.38		4,389.98
Wines and imitation wines:				
Domestic.....	27,630.95	35,088.98	₱7,458.03	
Imported.....	50,004.27	54,760.74	4,756.47	
Fermented liquors:				
Domestic.....	70,250.00	74,300.00	4,050.00	
Imported.....	8,445.42	8,580.52	135.10	

Source.	1912	1913	Increase.	Decrease.
Smoking and chewing tobacco:				
Domestic.....	₱155,968.08	₱113,599.78	.....	₱42,368.30
Imported.....	49,873.12	54,596.09	₱4,722.97	.....
Cigars:				
Domestic.....	108,369.00	103,031.14	.....	5,337.86
Imported.....	1.32	50.66	49.34	.....
Cigarettes:				
Domestic.....	2,167,088.58	2,123,389.83	.....	43,698.75
Imported.....	1,542.64	4,004.13	2,461.49	.....
Matches:				
Domestic.....	117,490.00	106,146.66	.....	11,343.34
Imported.....	64,266.75	81,404.20	17,137.45	.....
Dealers in alcohol and tobacco products.	315,775.50	338,799.84	23,024.34	.....
Merchants, manufacturers, and common carriers.	1,114,333.94	1,016,321.82	.....	98,012.12
Occupations, trades, and professions....	259,363.97	323,210.00	63,846.03	.....
Cedulas, personal.....	505,393.00	406,543.00	.....	98,850.00
Banks and bankers.....	128,717.17	129,839.66	1,122.49	.....
Insurance companies.....	2,130.89	10,343.18	8,212.29	.....
Forest products.....	174,539.90	160,913.31	.....	13,626.59
Documentary stamps.....	147,484.50	127,616.40	.....	19,868.10
Miscellaneous.....	21.48	14.06	.....	7.42
Total.....	6,945,965.08	6,629,727.71	136,976.00	453,212.83

Of the total amount of internal-revenue collections during the period under consideration there accrued to the insular treasury ₱4,305,325.61, to provincial treasuries ₱1,091,523.38, and to municipal treasuries ₱1,232,878.72, as compared with ₱4,584,625.35, ₱1,163,024.13, and ₱1,198,315.60, respectively, for the corresponding period of 1912.

The following table shows the city of Manila taxes and other revenues collected during the six months ending December 31, 1912, and 1913:

Items.	1912	1913
Real-estate tax.....	₱454,460.23	₱462,037.48
Matadero receipts.....	44,807.07	65,892.48
Market receipts.....	175,935.75	183,827.50
Municipal licenses.....	127,935.91	134,354.47
Rentals of city property.....	11,943.72	12,947.76
Municipal court receipts.....	42,445.21	54,557.96
Pail system.....	31,829.58	31,083.27
Odorless-excavator service.....	7,637.00	8,491.00
Building permits.....	14,661.74	16,105.00
Water rents.....	188,173.48	198,266.06
Board of health fees.....	6,215.20	2,329.70
Cementerio del Norte.....	12,641.15	10,008.70
Justice of peace fees.....	6,487.35	2,700.60
Franchise taxes.....	18,314.81	16,651.87
Rice sales.....	159.88	.....
Construction and repair of streets, bridges, sidewalks, and curbs.....	29,840.56	21,124.03
Transportation, insular government.....	40,095.01	15,741.63
Other minor receipts, miscellaneous, and internal-revenue dividend.....	398,715.98	288,794.60
Total.....	1,612,299.63	1,524,914.11

COST OF COLLECTION.

The cost to the government of making the above collections, including the enforcement of certain laws, ordinances, and regulations which are not revenue measures, was ₱297,735.81, equal to 3.38 centavos for each peso collected. This is an abnormally high rate of cost of collection, and the next six months, that is from January to June, 1914, will show an abnormally low rate, as certain annual taxes, such as the cedula tax, are due and payable during a period in the first

half of the calendar year. To illustrate: The total collections for the period from January 1 to June 30, 1913, exceeded those for the period from July 1, 1912, to December 31, 1912, by ₱4,067,442, or over 43 per cent.

The foregoing amount also includes expenditures incident to the enforcement of the opium law, as no fund was provided for this work as there had been in former years.

DISTILLED SPIRITS, WINES, AND LIQUORS.

Distilled spirits.—The total output from registered distilleries during the last half of the fiscal year was 5,308,529 proof liters. Of this amount 385,345 was removed from distilleries without the payment of tax as denatured alcohol for industrial purposes. This was 50,419 liters more denatured alcohol than was used for the same period of 1912.

On December 31, 1913, there were in operation throughout the islands 75 registered stills of modern type. Thirty illicit stills were captured by internal-revenue agents during the six months covered by this report.

Wines.—The following comparative statement shows the quantity in gauge liters of domestic and imported wines and imitation wines on which taxes were collected during the period from July 1 to December 31 of 1912 and 1913:

Kind.	Domestic.		Imported.	
	1912	1913	1912	1913
Containing not more than 14 per cent alcohol.....	290,556	386,829	500,737	570,011
Containing more than 14 per cent alcohol.....	33,696	32,742	55,190	64,958
Sparkling wines.....			7,007	6,351
Total.....	324,252	419,571	562,934	641,320

This table shows an increase in the consumption of both domestic and imported wines.

Fermented liquors.—Taxes were collected during the period from July 1 to December 31, 1913, on 2,072,013 gauge liters of beer, of which 1,857,500 liters were of domestic make and 214,513 liters were imported, as compared with 1,967,385.50 gauge liters for the corresponding six months of 1912, of which 1,756,250 liters were of domestic manufacture and 211,135.50 liters were imported.

There were exported during the six months covered by this report 22,615 liters, as compared with 6,779 liters during the same period of 1912. The total output of domestic beer for the period July–December, 1913, exceeded by 101,250 liters that of the corresponding six months of 1912.

TOBACCO PRODUCTS AND MATCHES.

Smoking and chewing tobacco.—The following comparative statement shows the quantities of domestic and imported smoking and

chewing tobacco on which taxes were collected during the period from July 1 to December 31, of 1912 and 1913:

	Domestic.		Imported.	
	1912	1913	1912	1913
Smoking.....	<i>Kilos.</i> 232,393	<i>Kilos.</i> 137,635	<i>Kilos.</i> 56,738	<i>Kilos.</i> 48,961
Chewing.....	103,323	94,896	63,770	64,216
Total.....	335,716	232,531	120,508	113,177

In addition to the domestic smoking and chewing tobacco consumed in these islands on which the tax was paid, the exports during the period covered by this report amounted to 30,495 kilos.

Cigars.—The total production of cigars for the six months ending December 31, 1913, was 125,260,944. Of this amount 44,254,339 were consumed in the Philippine Islands, 54,634,052 were exported to foreign countries, and 26,372,553 were shipped to the United States.

During the period from July 1, 1913, to December 31, 1913, as compared with the same period of the preceding year, there was a decrease of about 49 per cent in the number of cigars shipped to the United States. The greater part of this decrease is due to the fact that some of the factories which recently started for the export business taxed themselves beyond their capacity and as a result turned out cigars of inferior quality. Other causes of this decrease is the receipt in the United States of worm-eaten and musty cigars and the fact that this staple is not well advertised in that country.

Cigarettes.—The total production during the period covered by this report was 2,143,531,197. Of this number 2,117,661,662 were consumed in the islands, and 25,869,535 were exported to foreign countries. China, as in previous years, received by far the greater part of the cigarettes exported, 11,485,600 having been shipped to that country during the six months ending December 31, 1913. The consumption in the United States amounted to 5,358,075.

Leaf tobacco.—The following comparative statement shows the quantity of leaf tobacco produced, the quantity used in the manufacture of cigars, cigarettes, smoking and chewing tobacco, and the quantity exported during the calendar years 1912 and 1913:

	1912	1913
Leaf tobacco on hand by dealers and manufacturers at beginning of calendar year.....	<i>Kilos.</i> 20,937,655	<i>Kilos.</i> 25,479,489
Production.....	30,431,004	33,562,085
Total.....	51,368,659	59,041,574
Quantity used in the manufacture of—		
Cigars.....	3,222,745	2,916,714
Cigarettes.....	7,774,743	7,696,247
Smoking tobacco.....	400,600	342,192
Chewing tobacco.....	204,063	194,874
Total.....	11,602,151	11,150,027
Exported in the leaf: ¹		
To the United States.....	41,932	3,094
To other countries.....	12,518,917	13,074,680
Total.....	12,560,849	13,077,774

¹ There were also exported 408,317 kilos of cuttings, clippings, and waste during 1912.

	1912	1913
Exported as cuttings and waste:	<i>Kilos.</i>	<i>Kilos.</i>
Cuttings.....		64,513
Waste.....		505,250
Total.....		569,763
Disposed through retailers to consumers (no tax is imposed on cigars and cigarettes made by hand by the actual consumers thereof) and shrinkage.....	1,726,170	2,525,324
Total.....	25,889,170	27,322,888
Balance on hand by dealers and manufacturers at end of calendar year.....	25,479,489	31,718,686

NOTE.—All figures given above are for unstemmed leaf with the exception of amounts exported as cuttings and waste.

Matches.—The quantity of matches consumed in the islands during the period July 1 to December 31, 1913, was 468,877.15 gross boxes, as compared with 454,391.88 gross boxes for the corresponding period of 1912.

LICENSE TAXES.

Dealers in alcohol and tobacco products.—There was collected from this source during the period from July 1 to December 31, 1913, ₱338,799.84, as compared with ₱315,775.50 collected during the same period of 1912, an increase of ₱23,024.34.

Merchants, manufacturers, and common carriers.—There was collected as percentage taxes during the six months ending December 31, 1913, ₱1,016,321.82, as against ₱1,114,333.94 collected during the same period of the preceding years. Of this amount 91.7 per cent was paid by merchants, 6.4 per cent by manufacturers, and 1.9 per cent by common carriers.

Occupations, trades, and professions.—Of the total amount collected under this head, 74.2 per cent was paid by the proprietors of cockpits and theaters, 9.5 per cent by lawyers, doctors, civil engineers, and surveyors, and 16.3 per cent by all other occupation license taxpayers. Six hundred and eleven municipalities availed themselves of the provisions of the law authorizing the imposition by municipal councils of additional taxes on cockpits. There were 25 municipalities in which no cockpit licenses were issued during the period covered by this report.

BANKS AND BANKERS.

The following comparative statement, based upon the taxes assessed and collected, shows the average amount of capital employed by, average amount of deposits with, and average amount of circulation by banks during the period from January 1 to June 30, of 1912 and 1913:

	1912	1913
Average capital.....	₱12,389,441.33	₱12,389,047.50
Average deposits.....	29,355,956.56	29,660,227.68
Average circulation.....	4,934,184.01	5,354,782.40

CEDULAS PERSONALES.

A decrease of ₱98,850 is shown in collections from the sale of cedula personales, or certificates of registration, during the period from July 1 to December 31, 1913. This decrease is principally due to the large amount of delinquent cedula taxes collected during the preceding year.

FRANCHISE TAXES.

Of the amount of franchise taxes collected ₱67,769.86 accrued to the insular treasury, ₱43,968.75 to Manila and other municipal treasuries, and ₱3,210 to provincial treasuries.

SAN LAZARO ESTATE RENTALS.

The following is a summary of work accomplished during the six months ending December 31, 1913, in the collection of rentals from the tenants of the San Lazaro estate:

Sites rented June 30, 1913.....	2. 218
Sites rented Dec. 31, 1913.....	2, 216
Tenants June 30, 1913.....	1, 406
Tenants Dec. 31, 1913.....	1, 392
Amount collected July to December, 1912.....	₱25, 037. 97
Amount collected July to December, 1913.....	₱27, 396. 78
Amount delinquent June 30, 1913.....	₱9, 747. 25
Amount delinquent Dec. 31, 1913.....	₱9, 691. 25

By Executive Order No. 22, dated February 20, 1914, the collection of rents from the San Lazaro estate has been transferred to the bureau of lands, beginning on that date.

OPIUM.

The following is a summary of the operations under the opium law during the period from March 1, 1908 (the date on which the importation, traffic in, use, and possession of opium, except for medicinal purposes, became unlawful), up to and including December 31, 1913:

Persons charged with violations.....	8, 549
Convictions (including compromised cases) ¹	6, 305
Total amount of fines imposed.....	₱869, 377. 96
Average amount of fines imposed.....	₱245. 95
Total amount of fines paid.....	₱576, 216. 01
Average amount of fines paid.....	₱248. 90
Imprisonment sentences.....	2, 804
Average term of imprisonment.....	3 months and 22 days.
Alien offenders deported.....	185

¹ There were 167 cases pending before the courts at the close of the period ended Dec. 31, 1913.

Respectfully submitted.

VICTORINO MAPA,
Secretary of Finance and Justice.

To the PHILIPPINE COMMISSION.

REPORT OF THE SECRETARY OF FINANCE AND JUSTICE.

FISCAL YEAR ENDING DECEMBER 31, 1914.

DEPARTMENT OF FINANCE AND JUSTICE,
Manila, March 20, 1915.

SIRS: I have the honor to submit for your consideration the following report of the department of finance and justice covering the calendar year 1914:

JUDICIARY.

SUPREME COURT.

The volume of business transacted by the supreme court during the calendar year 1914 was about the same as during the fiscal year 1913. On December 31, 1913, there were 959 cases pending on the dockets of the court, of which 627 were civil and 332 were criminal. There were filed during the period January 1 to December 31, 1914, 538 civil and 389 criminal cases, as compared with 500 civil and 488 criminal cases during the fiscal year 1913, a decrease of 61 cases. There were decided 363 civil and 462 criminal cases, a total of 825, compared with 289 civil and 529 criminal cases, a total of 818, for the fiscal year 1913.

At the close of business, December 31, 1914, there were 1,061 cases pending, of which 802 were civil and 259 were criminal, as compared with 1,013 cases pending at the end of the fiscal year 1913, of which 642 were civil and 371 were criminal. Of the cases pending at the end of the calendar year 1914, 377 were submitted, but no decision rendered, and 684 were not yet ready for hearing, on account of briefs not having been filed.

One hundred and ninety-four candidates for admission to the bar were examined during the year, as against 123 for the preceding year. Fifty-four passed the examination, as against 22 for the previous year.

Volume XXVI of the Philippine Reports has been completed and published in English and Spanish during the year. This brings the reports down to February 20, 1914.

The total amount of fees, fines, and costs collected by the court during the year was ₱20,283.78, as compared with ₱13,973.49 for the fiscal year 1913. Of the first amount, ₱6,510 represents the bar examination fees.

COURT OF FIRST INSTANCE OF MANILA.

The following is a summary of the business conducted in the court of first instance of the city of Manila during the calendar year 1914:

	Fiscal year 1913.	Calendar year 1914.
CIVIL BRANCH.		
Cases pending at beginning of the year:		
Ordinary civil.....	424	673
Probate and guardianship.....	833	1,148
Probate and guardianship which were considered as decided but are still pending.....	208	.....
Cases filed during the year:		
Ordinary civil.....	870	1,022
Probate and guardianship.....	210	205
Total to be disposed of.....	2,545	3,048
Cases decided during the year:		
Ordinary civil.....	438	625
Probate and guardianship.....	79	92
Cases dismissed:		
Ordinary civil.....	305	222
Probate and guardianship.....	1	.....
Total decided and dismissed.....	823	939
Cases pending at the end of the year:		
Ordinary civil.....	551	848
Probate and guardianship.....	1,171	1,261
Total pending.....	1,722	2,109
CRIMINAL BRANCH.		
Cases pending at beginning of the year.....	68	86
Cases filed during the year.....	1,589	1,180
Total to be disposed of.....	1,657	1,266
Cases decided during the year.....	1,386	1,076
Cases dismissed.....	85	100
Total disposed of.....	1,471	1,176
Cases pending at the end of the year.....	186	90
CUSTOMS APPEAL CASES.		
Cases pending at the beginning of the year.....	4	10
Cases filed during the year.....	18	16
Total to be disposed of.....	22	26
Cases decided and dismissed during the year.....	17	16
Cases pending at the end of the year.....	5	10

The above figures show that the number of civil cases filed during the year 1914 is greater than that for the fiscal year 1913 by 147. One thousand one hundred and eighty criminal cases were filed, as compared with 1,589 during the fiscal year 1913. Nine hundred and thirty-nine civil and probate cases were disposed of, compared with 823 for the fiscal year 1913, an increase of 116 in the number disposed of, this notwithstanding 2,109 civil and probate cases were pending at the close of the year 1914, as compared with 1,722 at the end of the fiscal year 1913. But 90 criminal cases remained undisposed of on December 31, 1914, against 186 on June 30, 1913. With respect to customs appeal cases, 16 of said cases were filed, as against 18 in 1913, of which 10 remained undisposed of, as against 5 at the end of the previous year mentioned.

The total collections for the court of first instance of Manila amounted to ₱50,141.27, compared with ₱81,752.78 for the fiscal year 1913.

COURTS OF FIRST INSTANCE IN THE PROVINCES.

There were filed during the calendar year 1914, 3,687 civil cases, including probate cases, compared with 3,890 civil cases during the fiscal year 1913, a decrease of 203 cases. There were 3,386 civil cases disposed of, compared with 3,556 during the fiscal year 1913, showing a decrease of 170 in the number of cases disposed of. On December 31, 1914, there were pending 3,109 ordinary civil and 2,619 probate cases, a total of 5,728, compared with 3,072 ordinary civil and 2,519 probate cases, a total of 5,591 civil cases pending at the end of the fiscal year 1913, an increase of 137 in the number of cases pending.

There were 7,799 criminal cases filed during the year, as compared with 8,006 for the fiscal year 1913, a decrease of 207. There were 7,887 criminal cases disposed of during the year, compared with 7,638 during the fiscal year 1913, an increase of 249 in the number of criminal cases disposed of. The number of criminal cases pending at the end of the year was 2,085, as compared with 2,712 at the close of the fiscal year 1913, showing a decrease of 627 in the number of cases pending.

The above figures show that the increase in the work of the courts of first instance noted in previous years has continued during the year under consideration.

The aggregate number of civil and criminal cases disposed of during the year (11,273) was greater than that for the fiscal year 1913 (11,194) by 79, yet there was an increase of 137 in the number of civil cases pending at the close of the year. While better results were expected from the operation of Act No. 2347, reorganizing the courts of first instance and the court of land registration, and providing for a greater number of judges, which took effect July 1, 1914; however, the lapse of time covered by this report—July 1 to December 31, 1914—during which said act has been effective, is deemed too short in order to appreciate its effect.

The collections made by the courts of first instance in the provinces during the year 1914, as reported by the clerks of court, amounted to ₱138,758.88, as compared with ₱156,538.17 in the fiscal year 1913.

COURT OF LAND REGISTRATION AND GENERAL LAND REGISTRATION OFFICE.

The former court of land registration was discontinued on July 1, 1914, in accordance with the provisions of Act No. 2347. Jurisdiction in cases for the registration of land titles was, by the above-mentioned act, transferred to the various courts of first instance; and a central office, known as the general land registration office, was created, to which was transferred the regular administrative work formerly devolving on the clerk of the court of land registration. The head of this office is known by the title of "chief of the general land registration office."

There were filed during the year 55 cadastral cases, including 26,045 parcels of land, and a total area of 446,798,761.31 square meters. The number of regular applications was 902 and the number of cases disposed of 792. There were 49 appeals taken to the

supreme court during the year; 891 cases were published in the Official Gazette, and decrees were issued in 781 cases, the total number of decrees amounting to 3,956 and the number of parcels covered by such decrees was 5,873, involving an area of 756,339,874 square meters.

There were also instituted 36 civil and 1 military-reservation proceedings, involving 60 parcels and an area of 142,835,522 square meters.

The amount of ₱34,209.31 was received in connection with the applications for registration, and the cost of publications and advertisements in the Official Gazette amounted to ₱26,272.52. The approximate total expenses of the court and office amounted to more than ₱165,695.50. The approximate value of property registered is ₱8,337,786.

The land-registration work since the transfer of jurisdiction to the courts of first instance has not developed to such an extent as to justify drawing a comparison between the present system and that under the old organization. It is possible that the work of the year 1915 will prove a better basis on which to make comparisons with the work of the old organization than the last half of the year 1914, as that period of time was devoted in a large measure to perfecting the new organization and determining its necessities.

The chief of the general land registration office reports that 523 cases were decided by the court of land registration, abolished June 30, 1914, and 269 cases by the courts of first instance outside of Manila, a total of 792 cases disposed of during the year 1914.

JUSTICE OF THE PEACE COURTS.

During the year 1914, 166 justices of the peace and 185 auxiliary justices of the peace were appointed, compared with 159 and 161, respectively, for the fiscal year 1913. Five justices of the peace and 14 auxiliary justices of the peace declined appointment; 33 and 57, respectively, resigned; 19 and 17 were relieved from office, not having qualified under Act No. 2041, as against 48 and 9, respectively, for the fiscal year 1913. Ten justices of the peace and 6 auxiliary justices of the peace died.

Thirteen, or 1.77 per cent, of the 733 justices of the peace were removed for cause; the same number and per cent were disciplined; 5, or 0.68 per cent, were found not guilty, and one administrative case against a justice of the peace was pending action by the Governor General at the end of the year, making a total of 32, or 4.37 per cent, the number of justices of the peace investigated. Of 541 auxiliary justices of the peace, 4, or 0.74 per cent, were investigated. Of these, 3, or 0.55 per cent, were removed, and 1, or 0.18 per cent, was found not guilty.

BUREAU OF JUSTICE.

The Hon. Ramon Avanceña, assumed office as attorney general January 2, 1914, by appointment from the position of judge of the court of first instance for the twelfth judicial district, vice Hon. Ignacio Villamor, appointed executive secretary.

The Hon. George R. Harvey was transferred from the office of solicitor general to that of judge of the court of first instance for

the seventh judicial district February 4, 1914, and the Hon. Rafael Corpus appointed to succeed him April 1, 1914, serving in that capacity until promoted to the position of director of lands, November 11, 1914.

The legal work performed by the bureau of justice during the calendar year 1914, as compared with the previous fiscal year, is shown in condensed form in the following summary:

	Fiscal year 1913.	Calendar year 1914.
Cases in the supreme court in which briefs and arguments were presented.....	639	440
Cases in the supreme court in which the bureau of justice appeared by motion.....	75	84
Cases in the court of land registration in which the bureau of justice appeared and opposed registration.....	445	305
Cases in the court of land registration examined, but no opposition presented.....	489	369
Cases conducted in the courts of first instance.....	192	111
Cases conducted in the justice of the peace court of Manila.....	1,463	4,221
Written opinions rendered by the attorney general to the chief executive, heads of the four departments, chiefs of bureaus, and other officials.....	200	478

These figures show that while there was during the year a slight decrease in the amount of work performed by the bureau of justice in the higher courts, there has been an increase of more than 100 per cent in the number of opinions rendered and cases conducted in the justice of the peace court of the city of Manila, as compared with the fiscal year 1913.

Of the 4,221 cases conducted in the justice of the peace court of the city of Manila at least 99 per cent were in representation of the director of lands for the purpose of enforcing payment of delinquent installments by tenants and purchasers of lots in the friar-lands estates.

ADMINISTRATION OF ESTATES.

The number of estates of deceased American civil service employees, the administration of which devolves upon the attorney general under the provisions of Act No. 2136, is decreasing from year to year.

Following is a list of officers and employees of the civil service whose deaths occurred within the period covered by this report, and whose estates are or have been administered by the attorney general, viz, William C. Hager, patrolman, police department, city of Manila; John McDonald, teamster, city of Manila; E. W. Reynolds, assistant attorney, bureau of justice; Mont Richards, foreman, bureau of public works; Jesse D. Ward, provincial service of Mindoro; Isaac Williams, road foreman, bureau of public works; Henry G. Wood, lieutenant, Philippine Constabulary.

During the fiscal year 1914 the administration of the estates of the following deceased civil service employees was closed, viz, Charles A. Low, Erastmus A. Horning, Frank B. Jenkins, John W. Stephenson, Charles M. Hatton, James W. Wakeley, E. W. Reynolds, W. C. Hager, Jesse D. Ward, Henry G. Wood.

The estates of the following named deceased are in course of administration by the attorney general December 31, 1914, viz, Thomas L. Carter, Lewis G. Wilford, John McDonald, C. D. Clifford, A. R. Travers, Isaac Williams.

Settlement of the estates of Thomas L. Carter, C. D. Clifford, and A. R. Travers has not been effected for the reason that no heirs at law of said deceased can be located.

Funds, estates of deceased employees.

Balance December 31, 1913-----	₱4,642.23	
Receipts calendar year 1914-----	15,825.83	
		₱20,468.06
Disbursements calendar year 1914-----	10,366.98	
Balance December 31, 1914-----	1,101.08	
		20,468.06

BUREAU OF THE TREASURY.

FINANCIAL STATEMENT.

The following statement shows the balances on hand at the close of the calendar year 1913, the receipts, withdrawals, and currency exchanges during the calendar year under consideration, and the balances on hand at the close of business on December 31, 1914:

General funds:

Balance on hand at close of business Dec. 31, 1913-----	₱17,795,420.45	
Receipts for calendar year 1914, account of—		
Cash deposits, all sources-----	56,727,722.83	
Currency exchanges-----	54,651,654.58	
		₱129,174,797.86
Expenditures for calendar year 1914, account of—		
Cash withdrawals, all sources-----	61,137,234.78	
Currency exchanges-----	54,651,654.58	
		115,788,889.36
Balance on hand Dec. 31, 1914-----		13,385,908.50
Depository accounts:		
Balance on hand at close of business Dec. 31, 1913-----	11,082,535.24	
Deposits during calendar year 1914—		
Treasurer United States and United States disbursing officer-----	₱66,258,088.32	
Insular disbursing officers-----	43,603,274.94	
		109,861,363.26
Total-----		120,943,898.50
Withdrawals during calendar year 1914—		
Treasurer United States and United States disbursing officers-----	₱69,340,760.42	
Insular disbursing officers-----	43,684,463.06	
Total-----		113,025,223.48
Balance on hand Dec. 31, 1914-----		7,918,675.02

Silver certificate reserve account:

Balance on hand at close of business Dec. 31, 1913.....	₱30,045,570.00
Certificates issued during calendar year 1914	14,290,000.00
Total.....	44,335,570.00
Certificates retired during calendar year 1914	10,436,848.50
Balance Dec. 31, 1914.....	₱33,898,721.50
Total of funds for which insular treasurer was ac- countable at close of business Dec. 31, 1914.....	55,203,305.02

This balance was distributed as follows:

Distribution of funds.

	United States currency.	Philippine currency.	Philippine currency.
In treasury vaults.....	\$514,304.16	₱39,851,161.97	
On deposit with local banks on open account.....		3,099,025.82	
Time deposits with local banks.....		1,301,784.13	
On deposit with authorized depositories in the United States.....	4,961,362.39		
Total	5,475,666.55	44,251,971.92	₱55,203,305.02

The "general treasury" balance of ₱13,385,908.50 in the foregoing statement includes the balances of the various trust funds, and is made up as follows:

General fund.....	₱3,225,334.65
Gold-standard fund.....	9,652,224.92
Friar-lands bonds sinking fund, Act No. 1749.....	(96,419.54)
Public-works bonds sinking fund, Act No. 1729.....	45,051.94
Manila sewer and waterworks bonds sinking fund, Act. No. 1323	44,887.17
Cebu waterworks bonds sinking fund, Act No. 2009.....	9,685.00
Money-order funds.....	962,075.45
Postal savings bank fund, Act No. 1493.....	15,435.61
Assurance fund, Act No. 496.....	41,336.15
Constabulary pension and retirement fund, Act No. 1638.....	56,170.64
Insular insurance fund, Act No. 1728.....	(178,316.42)
Fidelity bond premium fund, Act No. 1739.....	(418,437.74)
Insurance fund, city of Manila.....	26,880.67
Total.....	13,385,908.50

The "depository balance" of ₱7,918,675.02 in the same statement includes the following accounts:

Agricultural Bank of the Philippine government.....	₱50,612.80
Burnham memorial fund.....	4,000.00
The Manila Railway Co. (1906) Ltd.....	107,000.00
Fourth of July celebration fund.....	3,778.56
Memorial monument fund, Act No. 1840.....	255.52
Treasury overage account.....	137.43
Antituberculosis society.....	6,572.88
Trust fund, Act No. 2392—Pototan Electric Light & Power Co.....	1,000.00
Trust fund, Act No. 2393—Silay Electric & Ice Plant Co.....	1,000.00
Trust fund, sec. 2, Act No. 1510—Manila Railway Co.....	54,141.85
Cavite electric light franchise—sec. 2, Act No. 667.....	1,000.00
Trust fund, sec. 1, Act No. 1592—condemnation proceedings.....	293.24

Insular disbursing officers.....	₱48, 177. 12
United States disbursing officers.....	1, 213, 553. 30
Treasurer of the United States.....	2, 115, 177. 46
United States disbursing officers.....	4, 311, 974. 86
Total.....	7, 918, 675. 02

The "certificate reserve fund" balance of ₱33,898,721.50 in the statement consists of silver pesos held in the treasury against which have been issued an equivalent amount of silver certificates.

The sum of ₱3,099,025.82 shown in the statement "distribution of funds" as on open account with local banks pertains entirely to the general fund of the treasury and draws interest at the rate of 1 per cent per annum. This is a working balance subject to withdrawal at any time. The fixed, or time, deposits of ₱1,301,784.13 with local banks, appearing in the same statement, draws interest at the rate of 1 per cent and $3\frac{1}{2}$ per cent per annum and pertains to the following funds:

General fund at 1 per cent per annum.....	₱1, 250, 000. 00
General fund at $3\frac{1}{2}$ per cent per annum.....	1, 282. 33
Fidelity deposits, sec. 11, Act No. 1510, at $3\frac{1}{2}$ per cent per annum.....	50, 501. 80
Total.....	1, 301, 784. 13

In addition to the foregoing time deposits carried in the insular treasurer's cash accountability there is on time deposit with local banks the sum of ₱1,028,000 pertaining to the treasurer's investment accountability, an itemized statement of which appears in the "investment schedule" of this report. There is also on fixed deposit with these banks the sum of ₱4,900,000 Agricultural Bank funds.

The total time or fixed deposits with local banks, therefore, amounts to ₱7,229,784.13, of which ₱5,979,784.13 draws interest at the rate of $3\frac{1}{2}$ per cent per annum and ₱1,250,000 draws interest at the rate of 1 per cent per annum.

The amount with authorized depositories in the United States, \$4,961,362.39, consists of the following funds:

General fund.....	\$443, 109. 62
Gold-standard fund.....	4, 518, 252. 77
Total.....	4, 961, 362. 39

Of the foregoing amount, \$4,193,109.62 draws interest at the rate of 3 per cent, and the remainder at the rate of $2\frac{1}{2}$ per cent per annum. The \$4,193,109.62 on which interest at the rate of 3 per cent is received is on open account and is divided amongst 12 depositories. It is understood between the government and each of these depositories that this money is to remain undisturbed unless 30 days' notice that same is to be withdrawn be given the depository. This understanding, however, is not an obligation, and in case of emergency these deposits may be withdrawn without previous notification.

FIDELITY BOND PREMIUM FUND.

The fidelity bond premium fund, by means of which the government insures itself against losses and defalcations on the part of its accountable officers and employees, has been in operation seven years. It originated with the capital of ₱122,553.14, and prior to the reversion

made on December 31, 1914, amounted to ₱561,616.28. The cost of operation averaging ₱4,857 per annum, or ₱34,000 in all, has been paid from the appropriation for the treasury bureau. After paying all losses incurred and making allowance for the cost of administration the actual profit accruing to the government from the operation of this fund since its inception has been ₱405,063.14.

The total amount of bonds in effect on December 31, 1914, was ₱10,362,500 and the cost of administration during the present calendar year was ₱4,800. The minimum rate charged by private bonding companies prior to the establishment of the fidelity bond premium fund was 1 per cent per annum. The rate in effect at the present time is one-half of 1 per cent per annum.

Based on the rates charged by the private surety companies prior to the inauguration of the present system, it is estimated that the government would have paid such companies during the past seven years approximately ₱560,000. It will therefore be seen that from a business standpoint the fidelity bond premium fund has been extremely successful and highly profitable.

During the calendar year under consideration shortages in the accounts of the insular, provincial, and municipal officials amounting to ₱26,913.28 were certified by the insular auditor and paid by the fidelity bond premium fund, and the total shortages during the period of seven years amount to ₱131,000.

BANKS AND BANKING.

Agricultural Bank.—Long-term mortgage loans amounting to ₱1,330,230 were made during the year, making the total of such loans outstanding on December 31, 1914, ₱4,073,200, as against ₱2,742,970 on December 31, 1913. Practically all of the amount loaned during the year under consideration was placed during the first six months, after which operations of this character ceased, owing to the fact that the bank's funds available for long-term mortgage loans were exhausted. Efforts were made to secure from the Legislature additional capital by an appropriation from the general fund of the government, but because of decreased revenues and pressing needs from other sources the Legislature was unable to provide additional funds for the bank. The operations of the bank, in so far as long-term loans are concerned, will therefore be practically suspended during the coming year, as lendable funds will be limited to the bank's interest earnings. The attitude of the Legislature toward the bank has been extremely sympathetic, and it is confidently expected that at the next session ample provision will be made to enable the bank to continue its operation.

On December 31, 1914, the bank's delinquent-interest list was considerably larger than on the same date of the preceding year, but this gives no cause for alarm; more than 50 per cent of the amount delinquent is due from borrowers in Negros Occidental, and is due to the fact that the sugar-milling season commences in December and the product is not marketed until after the close of the fiscal year. In this connection it is but fair to state that during the months of January and February, 1915, a large percentage of the delinquent interest pertaining to this province was liquidated.

Five mortgages were foreclosed during the calendar year 1914 for noncompliance with the conditions of the contract between the bank and the borrower, but it is thought that the securities held are ample to fully protect the bank's interest.

There are at present in operation 27 agencies of the bank in provinces having no commercial banking facilities. Such agencies are yet in the experimental stage, and are limited in their activities to the sale of interisland exchange, the collection of commercial drafts, and the acceptance from the public of time and current deposits. The total deposits, both time and current, on December 31, 1914, amounted to ₱644,708.64, as compared with ₱234,897.46 on June 30, 1913, the date of the last published report of the bank. The possibility of utilizing these deposits for short-term loans to farmers on the security of crops harvested and stored is at present receiving consideration. The difficulties encountered in this connection are lack of suitable warehouse facilities throughout the provinces and difficulty in obtaining insurance on produce at points where agencies are located.

At the request of the Manila Merchants' Association the bank accepts for collection drafts against shipment of merchandise to points at which its agencies are established and undertakes the collection of such drafts. This feature of the bank's activities has been but recently established and is rapidly meeting with favor.

Private banks.—During the calendar year 1914 the following institutions were examined and reported on by deputies of the insular treasurer, who under the law has supervision over trust companies, mutual benefit societies, building and loan associations, and banking institutions of every kind: The Hongkong and Shanghai Banking Corporation, Manila and Iloilo branches; the Chartered Bank of India, Australia, and China, Manila branch and its subagencies at Iloilo and Cebu; the International Banking Corporation, Manila branch and its subagency at Cebu; the Bank of the Philippine Islands, Manila and its Iloilo and Zamboanga branches; and the Monte de Piedad.

A comparative consolidated statement of the resources and liabilities of all the commercial banks in the Philippine Islands at the close of business on December 31, 1914, shows the following:

	Dec. 31, 1913.	Dec. 31, 1914.	Increase.	Decrease.
Total resources.....	₱63,745,929.22	₱66,639,866.94	₱2,893,937.72	
Loans and discounts.....	9,591,993.41	9,387,878.04		₱204,115.37
Overdrafts.....	24,375,639.62	26,971,309.13	2,595,669.51	
Current accounts.....	13,057,169.76	16,600,369.46	3,543,199.70	
Fixed deposits.....	14,370,101.29	11,468,664.29		2,901,437.00

The Monte de Piedad and Savings Bank is not included in the foregoing statement.

GUARANTY OF INTEREST ON BOND ISSUES OF RAILWAY CORPORATIONS.

Under authority of an act of Congress approved February 6, 1905, the insular government guarantees 4 per cent interest for a period not to exceed 30 years on the first-lien bonds issued by the Philippine

Railway Co. for the construction of certain lines in the islands of Panay and Cebu. Under the same authority and like conditions interest is also guaranteed on the 4 per cent first-lien bonds of what are known as the southern lines of the Manila Railroad Co. During the calendar year 1914 bonds to the par value of \$3,490,000 were issued by the latter company.

The combined issues of both companies on December 31, 1914, totaled \$19,126,000 United States currency, and the annual liability of the insular government under its guaranty amounts to \$765,040, United States currency.

BOND ISSUES.

The total bonded indebtedness of the insular and municipal governments of the Philippine Islands at the close of the calendar year 1914 was as follows: Friar-lands bonds, ₱14,000,000; public works and permanent improvement bonds, ₱12,000,000; city of Manila sewer and waterworks construction bonds, ₱6,000,000; city of Cebu bonds, ₱250,000; grand total, ₱32,250,000, this being the same amount of bonded indebtedness of the insular and municipal governments of these islands at the close of the fiscal year 1913.

GOLD-STANDARD FUND.

This fund, the origin and functions of which have been referred to in detail in previous annual reports, is fixed by statute in a sum equivalent to 35 per cent of the money of the government of the Philippine Islands in circulation, or available for that purpose. On December 31, 1914, the Philippine coinage in circulation and available therefor amounted to ₱52,731,969.87, requiring, under the provisions of law, a gold-standard or reserve fund of ₱18,456,189.45.

Act No. 2083 provides that any excess in the fund over and above the percentage referred to above shall be transferred from the gold-standard fund to the general fund of the treasury and made available for appropriation. Under this provision, the surplus of ₱861,238.39 which accumulated during the year ending December 31, 1914, has been transferred to the general fund, making the total amount of surplus thus transferred since the passage of this act ₱5,717,958.44.

The act further provides that 50 per cent of the gold-standard fund may be loaned, under certain conditions, to provinces and municipalities of the islands for public works and permanent improvements, and that a certain portion of this 50 per cent may, under certain conditions, be loaned for short periods to the Manila Railroad Co. for the purpose of completing certain sections of new lines of railroad. Under these conditions, ₱3,816,040 of the fund has been loaned to provinces and municipalities and ₱4,827,000 to the Manila Railroad Co.

The amount of exchange on New York sold through the fund during the year was ₱22,016,056.58, as compared with ₱29,276,402.86 for the preceding year. As an offset to the amount sold in Manila on New York, the insular treasurer furnished the Treasurer of the United States credits in Manila to the extent of ₱16,000,000 in exchange for an equivalent amount credited by the Treasurer of the

United States to the gold-standard fund in New York. The earnings of the gold-standard fund from the sale of exchange and interest on deposits and loans amounted to ₱857,486.70 for the year under review, as against ₱1,028,721.02 for the preceding year, and the net income of the fund from all sources was ₱914,955.09, as compared with ₱1,002,855.50 for the preceding year.

CIRCULATION.

The total exports of Spanish-Filipino and Mexican currency, both by the Government and commercially, during the period July 1, 1903, to December 31, 1914, amounted to Pfs. 33,706,128.89. It is estimated that Pfs. 330,000 still remain in the islands.

The withdrawal from circulation of the Philippine silver currency of the first issue and its recoinage into coins of lesser weight and fineness is progressing satisfactorily. During the year under consideration ₱152,502.20 was withdrawn from circulation and forwarded to the United States Mint at San Francisco for recoinage. The total silver coinage of the first issue received was ₱32,779,281.80, of which amount ₱30,360,603.40 was returned to the mint for recoinage, leaving a balance in circulation of ₱2,418,678.40.

The total silver coinage of the present authorized weight and fineness received from the United States mint amounts to ₱50,315,120.07. Silver certificates to the amount of ₱33,898,721.50 were in circulation and ₱21,766,848.50 were in the treasury vaults on December 31, 1914.

The total amount of bank notes issued by the insular treasurer to the Bank of the Philippine Islands for circulation amounts to ₱5,327,492.50.

The total amount of money in circulation at the close of the calendar year 1914 was ₱52,575,117.74. Based on the census of 1903, which gave the population of the Philippine Islands at 7,635,426, the per capita circulation of the islands on December 31, 1914, was ₱6.88.

EXPENSE OF CONDUCTING THE BUREAU.

The authorized personnel of the bureau of the treasury remained the same as for the preceding fiscal year, and the cost of conducting the bureau during the calendar year 1914 was ₱112,539.50, as compared with ₱115,471.86 for the fiscal year 1913.

BUREAU OF CUSTOMS.

GENERAL TRADE CONDITIONS.

The balance of trade in commodities at the close of the year 1914, as indicated by customs statistics, was in favor of the Philippine Islands, the imports amounting to \$48,588,653 and the exports to \$48,689,634, an excess in exports over imports of \$100,981. The total trade for the calendar year—\$97,278,287—was, however, less than that of 1913—\$101,085,742. This reduction is accounted for by the falling off of imports during the last six months of the year, especially after the beginning of the European war, as the value of products imported between January 1 and June 30, 1914, amounted to

\$27,972,622, whereas from July 1 to December 31, 1914, it amounted to only \$20,616,031, a decrease of \$7,356,591.

The total trade figures for the past two years are given below :

	Calendar year 1913.	Calendar year 1914.	Increase in 1914.	Decrease in 1914.
Total imports.....	\$53,312,786	\$48,588,653	.....	\$4,724,133
Total exports.....	47,772,956	48,689,634	\$916,678	.....
Total trade.....	101,085,742	97,278,287	.....	.....

Approximately 50 per cent of the trade of the islands during 1914 was with the United States, the export trade with that country amounting to slightly more than 50 per cent and the import trade to slightly less than that amount. The gain made by the United States in export trade with the Philippine Islands from \$16,434,018 in 1913 to \$24,427,710 in 1914 was at the expense of the United Kingdom, France, Japan, China, Hongkong, and Germany, all of which countries showed a reduction in export business for the year 1914. Italy and the Netherlands are the only other countries that increased their trade with the Philippines during the past year.

IMPORTS.

The value of imports during 1913 was \$53,312,786, while that of 1914 was \$48,588,653, a decrease of \$4,724,133, due to reduced importations during the last six months of the year. Importations from Japan, the French East Indies, and China increased during the year. On the other hand, importations from the United States decreased from \$26,676,261 in the preceding year to \$24,020,295 in 1914, and practically the entire remainder of the decrease for the year, approximately \$2,068,267, was proportionately divided between the United Kingdom, Germany, and France.

The decrease of \$4,724,133 in the value of products imported during 1914, compared to 1913, is made up mainly of decreased importations of meat products—\$2,053,250 to \$1,866,274; manufactures of cotton, \$11,844,301 to \$9,956,244; and manufactures of iron and steel, \$8,613,904 to \$6,983,444. Only the importations of rice and manufactures of leather show any substantial increase for the year, the latter product having increased from \$1,053,448 to \$1,557,824. Rice to the value of \$3,276,148 was imported in 1914, compared with \$3,164,591 in 1913 and \$13,008,506 in 1912. At no time since 1899 has the importation of rice reached the low mark set in 1913 and 1914.

The most noticeable increases among the lesser classes of imports are those in the values of carabao brought into the country—from \$2,666 in 1913 to \$66,557 in 1914, and other cattle from \$165,938 to \$241,766.

EXPORTS.

The total export trade of the islands reached a higher mark—\$48,689,634—during 1914 than during any previous year since 1899, with the exception of 1912. This total represents an increase of \$916,678 in export trade over the year 1913.

The exportation of sugar shows the greatest increase, not only in quantity but also in value. The large crop of cane harvested in the latter part of 1913 and sold during 1914, the greater demand and higher prices prevailing in foreign markets, and the substantial increase in the amount of high-grade centrifugal sugar produced by centrals recently installed, contributed to increase the quantity of that product exported from 157,333,707 kilos, valued at \$7,032,889 in 1913, to 236,498,001 kilos, valued at \$11,059,593, in 1914. Approximately 75 per cent of this sugar, representing the better grades, was shipped to the United States, and the remainder to China and Japan.

The increase in the exportation of coconut oil from 660 kilos, valued at \$40, in 1912, to 5,010,429 kilos, valued at \$1,146,339, in 1913, and 11,943,329 kilos, valued at \$2,619,183, in 1914, represents the establishment of an industry which, it is believed, will be an important factor in the future economic welfare of the islands.

Notwithstanding the increased exportation of coconut oil, 87,344,695 kilos of copra were exported in 1914, compared with 82,219,363 during the preceding year. However, due to the sharp break in the prevailing prices in foreign markets immediately following the outbreak of the war in Europe, and to the fact that over 60 per cent of the quantity exported was shipped during the last half of the year, when the market had not recovered from the stagnation of August and September, the value received for the large shipments of 1914 amounted to but \$7,980,270, whereas \$9,545,724 was obtained for the smaller quantity exported during 1913.

The exportation of hemp decreased slightly during the year, 116,386,575 kilos of that product, valued at \$19,194,815, having been shipped in 1914, compared with 119,821,435 kilos, valued at \$21,121,084, in 1913. The other reduced exportations which brought down the general high average for the year made by coconut oil and sugar are those of the various classes of tobacco, the shipment to other countries of cigars alone having fallen off from \$3,012,234 in value in 1913 to \$2,315,159 in 1914.

CUSTOMS COLLECTIONS.

The gross collections of the bureau during the calendar year 1914 were \$5,948,546.14, compared with \$6,943,075.69 in 1913, a decrease of \$994,529.55. Of this decrease, \$662,575.20 represents the reduction caused by the abolishment of the export tax in October of 1913, and \$391,394.18 the loss of revenue caused by decreased importations. The general increase in export trade is reflected in the amount of wharfage collected, which was \$525,488.25 in 1914, compared with \$407,308.50 in 1913.

The abolishment of duty collected on export products, the decreased importations of rice, and the increased percentage of import trade with the United States are the principal causes of the loss of customs revenue during the past year. It is probable that rice importations will be temporarily increased during the year 1915, which will, of course, involve a corresponding increase in revenue. Importations of merchandise, the growth, product, or manufacture of the United States during the year, amounted to approximately 50 per cent of the total import trade of the islands, an increase of about 5 per cent over the fiscal year 1913, although the total value of such

importations was less than in that year. For several reasons, the principal one being the European war, it is expected that this percentage of merchandise from the United States entitled to free admission to the islands will be considerably increased during the year 1915 and thereafter, with a corresponding reduction of import duty collected.

The gross collections reported above represent all receipts of the bureau of customs and include collections made for account of the Department of Mindanao and Sulu. Collections at the port of Jolo and Zamboanga were credited to the Department of Mindanao and Sulu, and the expense of operation of those ports was met by appropriation of the department.

Since July 1, 1914, internal-revenue taxes on imported merchandise have been collected directly by customs employees and deposited to the credit of the bureau of internal revenue. These collections during the last half of 1914 amounted to approximately \$150,000, which sum will undoubtedly be greatly exceeded during the coming year, as a considerable part of the revenue to be derived from the recent amendment to the internal-revenue law will be collected on imported products.

CONSULAR DUTIES.

During the year 1914, under the authorization contained in section 84 of the act of Congress of July 1, 1902, the insular collector of customs, in the capacity of American consul, provided temporary board and lodging for 12 destitute seamen, and furnished transportation for 11 of such persons from Manila to the United States, the expense involved being charged to the State Department of the United States Government. During the same period 857 American seamen were shipped and 535 discharged.

FOREIGN CARRYING TRADE.

During the calendar year 1914 there entered the Philippine Islands from foreign ports 772 vessels having a total tonnage of 1,912,756, and there were cleared for foreign ports 747 vessels, having a total tonnage of 1,931,249. During the calendar year 1913, 811 vessels of 1,945,448 tonnage entered the Philippine Islands from foreign ports and 794 vessels—1,977,767 tonnage—cleared for such ports, which totals are slightly in excess of those for the year 1914.

COASTWISE SHIPPING.

The coastwise shipping trade of the islands showed increased activity during the year. The number of coastwise vessels entered at all ports totaled 11,034, while 11,074 vessels were cleared from the same ports, compared with 9,885 vessels entered and 10,067 cleared during the calendar year 1913. Of the various ports, Iloilo shows the most substantial gain; practically one-half of the total entrances and clearances being at that port, and the only decrease in movement of steamers was at Manila, where a slightly smaller number of vessels entered and cleared during the year than in 1913.

The number of vessels engaged in coastwise traffic decreased during the year, 98 vessels having been wrecked or destroyed, whereas

the decrease from the same cause in 1913 was but 54. Many of these boats have already been replaced, as Philippine built vessels of small tonnage constituted the greater portion of those wrecked or destroyed.

Four hundred and four vessels have been inspected by the hull and boiler division during the year, an increase of 6 over the total for the fiscal year 1913, of which 309 were steamers and 95 sailing vessels. Twenty vessels were awaiting inspection at the close of the year and 11 were recorded as being out of commission. One hundred and seventy-three vessels were admeasured, 77 of which were steamers, 6 steam launches, 39 sailing vessels, 18 motor boats, and the remainder were boats of the smaller types.

Frequent sanitary inspections by a medical officer in the employ of the bureau of customs and periodical examinations and tests by steamship inspectors during the year of the life-saving and fire equipment of coastwise vessels have effectively guarded the health and safety of both passengers and crews, for the only lives lost during the year through marine accidents, etc., have occurred on small water craft exempt from inspection.

IMMIGRATION AND EMIGRATION.

During the calendar year 1914, 17,076 persons sought admission to the Philippine Islands and 17,136 departed therefrom. Of the number who entered 4,032 were immigrants and of the number departing 1,364 were emigrants, an apparent gain to the islands by immigration of 2,668 residents. During the same period 9,181 resident aliens departed from the islands with the intention of returning thereto within one year, and 7,200 of those who had previously departed with the same intention returned from abroad.

There were 3,296 citizens of the United States who departed from the islands during the year, whereas but 2,466 entered; also, 1,410 Filipinos left the islands during the year and only approximately one-half that number, or 736, returned. There was a marked increase in the number of Chinese who entered the islands for the first time during 1914, but the number of Japanese and East Indian immigrants was considerably less than in 1913.

DIVISIONS TRANSFERRED TO THE BUREAU OF CUSTOMS FROM THE FORMER BUREAU OF NAVIGATION.

The expense of operating the divisions of vessels and lighthouse maintenance, which, together with the marine railway and repair shop, were transferred to the bureau of customs by Act No. 2308, was reduced without detriment to the public service from \$710,738.79 in 1913 to \$499,790.55 in 1914. A brief statement of the operation of these divisions and reference to interisland transportation and the marine railway and repair shop follows.

Division of vessels.—There were in operation during the year the cable ship *Rizal*, the cutters *Polillo*, *Samar*, *Mindoro*, *Basilan*, and *Corregidor*, the seagoing launch *Ranger*, and the river and bay launches *Malecon*, *Jolo*, *Ethel*, *Ilocano*, and *Moro*, exclusive of the launches used for strictly customs purposes. The cutter *Negros* and the seagoing launch *Scout* were in use by the bureau until June and March, 1914, respectively.

The cable ship *Rizal* was engaged in cable-repair work only a few days during the year, and when not required for other official purposes was chartered to private parties for salvage work or for transporting freight within Philippine waters or in waters adjacent to the Philippine Islands. The earnings of the *Rizal* from this source during the year amounted to \$32,697.81.

The cutters have been engaged mainly in the transportation of official passengers and freight and in lighthouse work, and the sums collected for the services rendered to the various bureaus and provincial governments by the division during the calendar year 1914 amounted to \$154,828.

The cutter *Mindanao* is still under charter to the department of Mindanao and Sulu, and the expense of its operation is borne entirely by that department. The seagoing launch *Ranger* is constantly used by the bureau of constabulary in southern waters. A number of vessels not longer required by the Philippine government were disposed of during the year, among them were the cutter *Panay*, the seagoing launches *Scout* and *Rover*, and the river and bay launch *Guy Howard*.

The cost of operating government transportation during the calendar years 1913 and 1914, deducting from the former year the expense of launches transferred to the bureau of public works under the provisions of Act No. 2308, was as follows:

1913-----	\$610, 750. 44
1914-----	409, 636. 80

Lighthouse maintenance division.—There were 148 lights of various types maintained by the Philippine government in 1913. At the close of December, 1914, there were 151, and since the latter date acetylene lights have been established on Comiran Island, Black Rock, and Manucan Island, in the Sulu Sea, which assures a well-lighted route between Balabac Straits and the islands of Panay and Negros.

It is proposed to establish lights in the near future on an island north of Alabat, in Lamon Bay, east of Luzon; on the island Sibago, near the east entrance to Basilan Straits; and on the island of Tatalan, in the Tapiantana group, between the islands of Basilan and Jolo.

Owing to the satisfactory results that have been obtained by the use of acetylene lights, they are being gradually substituted for the smaller flashing and occulting lights which are more expensive to maintain.

The cost of operating the lighthouses in the Philippine Islands, not including the expense of lighthouse tenders, which is borne by the division of vessels, during the calendar year 1914 was \$90,153.75, compared with \$99,988.35 in 1913.

Marine railway and repair shop.—The shop, which is conducted without appropriation, has confined its operations to government work, for which a charge has been made equivalent to the cost of labor, material, supervision, etc., plus a surcharge of 10 per cent.

A dispensary has been maintained at Engineer Island for the benefit mainly of the employees of the marine railway and repair shop and the division of vessels. During the last calendar year there were treated by the medical inspector and his assistants 2,408 cases, and minor operations were performed and dressings applied to the number of 1,412.

The value of the work performed for the various insular bureaus, provincial governments, and for the quartermaster department of the United States Army was \$293,767.51 in 1914.

Interisland transportation.—At the beginning of the year there were in operation eight steamship lines, all but one of which were paid subsidies by the Philippine government. The contracts expired, however, on July 26, 1914, and were renewed for the balance of the year on routes Nos. 1, 2, and 3A under the provisions of Act No. 2351, by which \$10,000 was appropriated. Route 10B, between Manila and Cebu, was also continued by contract but without the payment of a subsidy.

Expense of conducting the bureau.—The operation of the entire bureau was carried on during the calendar year 1914 at a total cost of \$529,637.85, which is \$103,769.77 less than the total expense for 1913. Of the former amount, \$510,926.70 was borne by the insular government and \$18,711.15 by the department of Mindanao and Sulu.

BUREAU OF INTERNAL REVENUE.

CHANGE IN PERSONNEL.

The following changes in the personnel appointed by the Governor General took place during the year 1914:

Mr. James J. Rafferty, formerly collector of customs of the port of Zamboanga, was appointed collector of internal revenue January 10, 1914, vice Mr. William T. Nolting, appointed director of posts.

Mr. Venancio Concepción was appointed February 1, 1914, deputy collector of internal revenue, vice Mr. Henry Steere, resigned.

COLLECTIONS.

The following is a summary of the collections made by the bureau of internal revenue during the calendar years 1913 and 1914:

Item.	1913	1914
Alcohol and tobacco products removed or imported for consumption in the Philippine Islands:		
Manufactured in the Philippine Islands.....	₱7,874,285.44	₱7,986,137.52
Imported.....	692,866.61	672,517.36
Licenses:		
Dealers in alcohol and tobacco products.....	689,354.50	715,806.64
Merchants, manufacturers, and common carriers.....	2,140,936.75	2,175,566.11
Occupations, trades, and professions.....	668,892.32	717,104.96
Banks and bankers.....	272,364.00	255,307.67
Insurance companies.....	40,286.20	43,400.92
Documentary-stamp taxes.....	280,916.14	261,084.43
Cedulas.....	4,081,347.00	4,090,130.00
Forest products.....	377,037.26	442,660.61
Miscellaneous stamp collections.....	151.01	30.32
United States internal-revenue taxes collected on Philippine tobacco products shipped to the United States.....	432,188.44	363,398.19
Income taxes.....		285,932.85
Opium.....	88,602.31	39,220.92
Weights and measures.....	139,869.59	135,280.13
Franchise taxes.....	200,587.71	211,772.37
Justice of peace fines and fees.....	402,477.50	373,272.46
City of Manila taxes and revenues (various acts of the Philippine Commission)	3,676,746.53	3,709,159.75
San Lazaro estate (Executive Order No. 15, series 1906).....	55,836.10	16,188.50
San Lazaro estate, court costs.....	298.72	1163.40
Sales of public mineral lands (Act of Congress approved July 1, 1902).....	1,767.69	2,703.64
Sisalman Matadero.....	56,311.31	61,082.91
Subscription to publicity fund.....	12,178.10	2,207.81
Grand total.....	22,184,901.23	22,550,109.37

¹ These collections made by the Director of Lands since February 20, 1914.

The foregoing figures show that the total amount collected during the year 1914 was ₱22,550,109.37, as compared with a total collection during the calendar year 1913 of ₱22,184,901.23, an increase of ₱365,208.14, or about 1.6 per cent.

APPORTIONMENT OF INTERNAL-REVENUE TAXES.

Of the total amount of internal-revenue collections during the calendar year 1914 there accrued to the insular treasury ₱9,399,511.16, to provincial treasuries, ₱4,705,182.81, and to municipal treasuries, ₱3,390,332.60, as compared with ₱9,204,091.52, ₱4,689,091.58, and ₱3,364,723.72, respectively, for the year 1913.

COST OF COLLECTION.

The net cost to the government for the operation of the bureau of internal revenue during the year 1914 was ₱551,795.10, as compared with ₱600,044.26 for the fiscal year 1913. The total collections for the year under consideration being ₱22,550,109.37, this makes the cost of collection 2.45 centavos for each peso collected, as compared with 2.64 centavos for each peso collected during 1913.

ALCOHOL PRODUCTS.

Distilled spirits.—The total output from registered distilleries during the year was 11,847,354 proof liters, being over 8 per cent more than during the preceding calendar year when the production was 10,813,114 proof liters. The quantity of denatured alcohol used for industrial purposes, and removed without payment of taxes, was greater by over 120,000 proof liters than the quantity so removed during 1913, and almost three times as much as was used during the fiscal year 1912.

On December 31, 1914, there were in operation throughout the islands 79 registered stills of modern type, as compared with 75 in operation December 31, 1913. Sixty-six illicit stills were captured by internal-revenue agents during the year 1914.

Wines.—A slight falling off is shown in taxes collected on imported wines, but this is more than offset by the increased collections on the domestic product.

The following comparative statement shows the quantity of domestic and imported wines and imitation wines on which taxes were collected during the calendar years 1913 and 1914:

Quantities in gauge liters.

Kind.	Domestic.		Imported.	
	1913	1914	1913	1914
Still wines.....	823,294	1,000,331	1,113,606	992,667
Sparkling wines.....			12,849	7,547
Total.....	823,294	1,000,331	1,126,455	1,000,214

Fermented liquors.—Taxes were collected during the calendar year 1914 on 4,394,155.50 gauge liters of beer, of which 3,915,000 liters were of domestic make and 479,155.50 were imported, as compared

with 4,238,263.50 gauge liters for the preceding year, of which 3,765,000 liters were of domestic manufacture and 473,263.50 were imported.

There were exported during the year 1914, 79,387 gauge liters of domestic beer, as compared with 57,223 liters during 1913. The total output of domestic beer exceeded that of the year 1913 by 155,892 gauge liters.

TOBACCO PRODUCTS AND MATCHES.

Smoking and chewing tobacco.—The following comparative statement shows the quantities of domestic smoking and chewing tobacco on which taxes were collected during the calendar years 1913 and 1914:

Kind.	1913	1914
Smoking.....	<i>Kilos.</i> 287,523	<i>Kilos.</i> 269,659
Chewing.....	195,001	175,832
Total.....	482,524	445,491

Taxes were collected also on 253,133 kilos of imported smoking and chewing tobacco in 1913 and on 273,772 kilos in 1914.

In addition to the domestic smoking and chewing tobacco consumed in these islands on which the tax was paid, the exports of smoking tobacco during the calendar year 1914 to other countries amounted to 42,603 kilos, as compared with 55,156 kilos in 1913.

Cigars.—The total production of cigars during the year 1914 was 243,134,200, against 282,096,996 in 1913, a decrease of 38,962,796. Of the first number 90,624,757 were consumed in the Philippine Islands, 93,171,150 were exported to foreign countries, and 59,338,293 were shipped to the United States, as compared with 94,048,488, 113,916,608, and 74,131,900, respectively, in 1913.

The decrease of cigar trade with Europe is due chiefly to the effect of the European war, while the cigar trade with Australia has also been affected by the war and the new import duty established in that country. One cause of the decrease of the cigar trade with the United States, according to investigations made into the matter, appears to be the reaction following the dumping of a large quantity of cigars on consignment on the market in 1912, which were in part disposed of either at a loss to the manufacturers, or became worm-eaten and musty, resulting in the retirement of several factories from the export business in the following year. Another reason for the decrease is probably the lack of systematic advertising of Philippine cigars in the United States.

As our cigar trade with Europe and Australia has been greatly affected by the war, we must sell in the vast market of the United States the cigars which the two countries first named fail to take from us. The tobacco industry being one of the largest sources of wealth of these islands the government should make every effort to promote the trade of this staple in general, and the trade with the United States in particular, since from every 1,000 cigars sent to the United States we receive a revenue of ₱6, which the United

States Government imposes as internal revenue taxes on Philippine cigars consumed in that country and turns over to us as a gift, whereas cigars exported to foreign countries pay no taxes to the government of the Philippine Islands.

Cigarettes.—The total production during the year 1914 was 4,411,922,312, against 4,434,807,247 in 1913. Of the first number 4,366,293,508 were consumed in the islands, and 45,628,804 were shipped abroad, as compared with 4,388,233,154 and 46,574,093, respectively, in 1913. China continues to occupy first place among the countries receiving cigarettes from the Philippine Islands, 20,421,310 having been shipped to that country during 1914. Next comes Japan, with exportations to that country of 8,926,985 cigarettes, as compared with 1,477,300 cigarettes in 1913.

Matches.—The quantity of matches consumed in the islands during the year 1914 was 899,504.48 gross boxes, of which 527,875 gross boxes were of domestic manufacture and 371,629.48 gross boxes were imported, as compared with 941,211.53 gross boxes for the year 1913, of which 585,116.65 gross boxes were of domestic make and 356,094.88 gross boxes were imported.

LICENSE TAXES.

Dealers in alcohol and tobacco products.—There were collected as specific license taxes during the new fiscal year 1914 ₱715,806.64 as against ₱689,354.50 collected during the calendar year 1913. Of this amount 30.7 per cent was paid by dealers in distilled and manufactured liquors, 33 per cent by dealers in tobacco products, 30.5 per cent by dealers in beer, tuba, bassi, tapuy, etc., and 5.8 per cent by manufacturers and peddlers of liquors and tobaccos.

Merchants, manufacturers, and common carriers.—There were collected as percentage taxes during the new fiscal year 1914, ₱2,175,566.11, as against ₱2,140,936.75 collected during the calendar year 1913. Of this amount 98 per cent was paid by merchants and manufacturers and 2 per cent by common carriers.

Occupations, trades, and professions.—There were collected as specific occupation-license taxes during the new fiscal year 1914 ₱717,104.96, as against ₱668,492.32 collected during the calendar year 1913. Of this amount, 72.7 per cent was paid by the proprietors of cockpits and theaters, 27.3 per cent by lawyers, doctors, civil engineers, surveyors, brokers, photographers, and other occupation-license taxpayers. By the provisions of the internal revenue law the license-tax collections from owners of cockpits accrued intact to the treasuries of the various municipalities in which such taxes were collected. Six hundred and forty-nine municipalities availed themselves of the provisions of the law authorizing the imposition by municipal councils of additional taxes on cockpits. The rate of the additional license taxes thus imposed ranges from ₱4 to ₱12,500 per year. There were 16 municipalities in which no cockpit licenses were issued during the period covered by this report.

Cedulas.—There were collected from the sale of cedula personales during the year ₱4,090,130, as compared with ₱4,081,347 during the preceding year, an increase of ₱8,783. There were sold 26,970 more cedula during the year than during 1913, the greater increase

in the number of cedulas sold as compared with the increase in tax being due to the larger proportion of cedulas sold before the delinquency period arrived in 1914.

BANKS AND BANKERS.

The following comparative statement, based upon the taxes assessed and collected, shows the average amount of capital employed by, average amount of deposits with, and average amount of circulation by banks during the period from July 1, 1912, to June 30, 1913, and from July 1, 1913, to June 30, 1914:

	July 1, 1912, to June 30, 1913.	July 1, 1913, to June 30, 1914.
Average capital.....	₱14,624,603.16	₱11,925,970.07
Average deposits.....	29,885,713.37	29,006,255.90
Average circulation.....	5,358,633.69	5,353,973.89

INSURANCE COMPANIES.

The following table, based on tax statements rendered, shows the total amount of each kind of insurance on which premiums were paid and the average rate of premiums paid during the calendar years 1912 and 1913:

Kind of insurance.	Total amount of insurance.	Average rate of premium.	Total amount of insurance.	Average rate of premium.
	1912.	Per cent.	1913.	Per cent.
Fire.....	₱159,019,638.36	1.1	₱160,462,784.91	1.2
Marine.....	145,064,016.51	.35	140,514,668.95	.4
Life.....	26,510,480.33	.....	32,842,491.00	.....
Accident.....	585,000.00	.5	1,161,345.00	.86
Fidelity and surety.....	2,755,278.19	.6	4,469,374.57	.8
Typhoon and earthquake.....	1,015,410.00	.6	1,635,075.00	.5
Motor cars.....	.....	.....	187,510.00	5.2
Personal baggage.....	.....	.....	9,850.00	1.9

FRANCHISE TAXES.

Of the amount of franchise taxes collected, ₱131,924.94 accrued to the insular treasury, ₱75,068.26 to the city of Manila and other municipal treasuries, and ₱4,779.17 to provincial treasuries.

INCOME TAX.

The collections in the Philippine Islands during 1914 under the income-tax law of Congress of October 3, 1913, amounted to ₱285,932.85.

Owing to the distance from Washington, it was some time before the proper forms and regulations were received in Manila, which caused many persons to become delinquent in the filing of their returns. It appearing that it would be unjust to exact penalties from persons who were in no way to blame for the delay, the penalties incurred by delinquent persons were remitted by this department,

acting under the authority contained in section 5293, of the United States Revised Statutes, in connection with paragraph M of the income-tax law, upon the condition that the returns be filed on or before May 1, 1914.

The first year has seen a vigorous educational campaign by the internal revenue officers, intended to familiarize the public with the provisions of the law. The collection of the full amount of taxes due could not be expected under such a complicated law as the income-tax law during the first year of its enforcement. It is therefore reasonable to presume that the collections from this source during the year 1915 will be considerably augmented.

OPIMUM.

The following is a summary of the operations under the opium law (Act No. 1761) during the period from March 1, 1908 (the date on which the importation, traffic in, use and possession of opium, except for medical purposes, became unlawful), up to and including June 30, 1914, the latter date being the last day upon which the bureau of internal revenue was charged with enforcing this law:

Persons charged with violations.....	8,823
Convictions (including cases compromised).....	6,446
Total amount of fines imposed.....	P901,406.16
Total amount of fines paid, including fines in cases pending June 30, 1914, paid up to Dec. 31, 1914.....	P615,090.89
Imprisonment sentences.....	2,838
Allen offenders deported.....	195

LEGISLATION.

Several important acts bearing on the bureau of internal revenue have been passed by the Philippine Legislature and the Philippine Commission during the year just ended. The most notable of these is Act No. 2339, the internal-revenue law of 1914, being "An act revising and consolidating the laws relative to internal revenue." This law is a remarkably simple, straightforward, and complete exposition of one of the most complex subjects of legislation—taxation. Act No. 2339 includes in one act what was formerly included in Act No. 1189, the internal-revenue law of 1904, as amended, Act No. 1519, the weights and measures law, as amended, and those portions of Act No. 1761, the opium law, which pertained to the taxation of opium and other prohibited drugs and the regulation of the legal traffic in said drugs. The same Legislature which enacted Act No. 2339 shortly afterward passed Act No. 2381, which is a revision of the opium law. The most important feature of Act No. 2381, as it affects the bureau of internal revenue, is section 11, which provides that the chief of constabulary shall exercise supervision over the enforcement of the act. Act No. 2339 was made applicable to that part of the Philippine Islands inhabited by Moros and other non-Christian peoples by Act No. 2402 of the Philippine Commission, and Act No. 2381 was made applicable in the same territory by Act No. 2403 of the Philippine Commission.

A longer time in which to pay bank and license taxes was provided for in Act No. 2339. It was impossible to pay these taxes within the

time fixed by Act No. 1189 and the time was formerly extended by regulation of the bureau of internal revenue. In the latter part of 1913 the insular auditor questioned the legality of this proceeding and insisted on the collection of back penalties from the banks which had acted entirely in good faith and had paid the taxes due from them within the time granted them by the collector of internal revenue. Accordingly, in order to remedy the condition, the Legislature passed Act No. 2336 to afford relief to these banks and to ratify the action of the various collectors of internal revenue in extending the time for the payment of these taxes without penalty.

During the year 1914, owing to the European war, the revenues began to fall off to such an extent as to make additional sources of revenue imperative. Pursuant to the recommendation of the Governor General in his message to the Third Philippine Legislature, there was enacted on December 23, 1914, Act No. 2432, entitled "An act amending act numbered twenty-three hundred and thirty-nine, the internal-revenue law of nineteen hundred and fourteen, by imposing increased and additional taxes, and for other purposes." It was estimated that in the neighborhood of ₱5,000,000 additional internal revenue would be needed to meet the needs of the government during the year 1915. Act No. 2432 was intended to meet that need. Among the new taxes imposed, the following are worthy of mention:

An ad valorem tax of $1\frac{1}{2}$ per cent on the output of mines.

A specific tax on motor spirits and refined or manufactured mineral oils.

A specific tax on coal.

The most notable of the increased taxes imposed are the following:

Percentage tax on business from one-third of 1 per cent to 1 per cent, except in the case of common carriers, against whom a tax of 1 per cent was already imposed.

An additional tax upon proprietors of cockpits of 25 centavos for each cockfight.

The tax on distilled spirits produced from palm sap or cane was increased from 25 centavos to 35 centavos per proof liter.

The tax on beer and other fermented liquors was increased from 4 centavos to 6 centavos per liter.

The tax on smoking tobacco was increased from 48 centavos to 60 centavos per kilogram.

The tax on cigars was changed from a tax of ₱2, ₱4, and ₱6, respectively, according to the wholesale price, to a flat rate of ₱6 per thousand for all cigars.

The tax on cigarettes weighing not more than 2 kilograms per thousand was increased from ₱1 to ₱1.20 per thousand.

This emergency revenue law provides that the increased taxation should be in force only during the year 1915.

GENERAL BUSINESS CONDITIONS.

Despite the European war, internal-revenue figures on the business percentage tax indicate that about the same volume of business was transacted during 1914 as during 1913. These taxes amounted to ₱2,175,566.11 during the year, as compared with ₱2,140,936.75 during the preceding year. This tax fell off about $1\frac{1}{2}$ per cent in

Manila and about 6 per cent in the principal hemp and copra producing provinces. On the other hand, there was an increase of 24 per cent in the sugar provinces. The business done in the other provinces shows a slight gain.

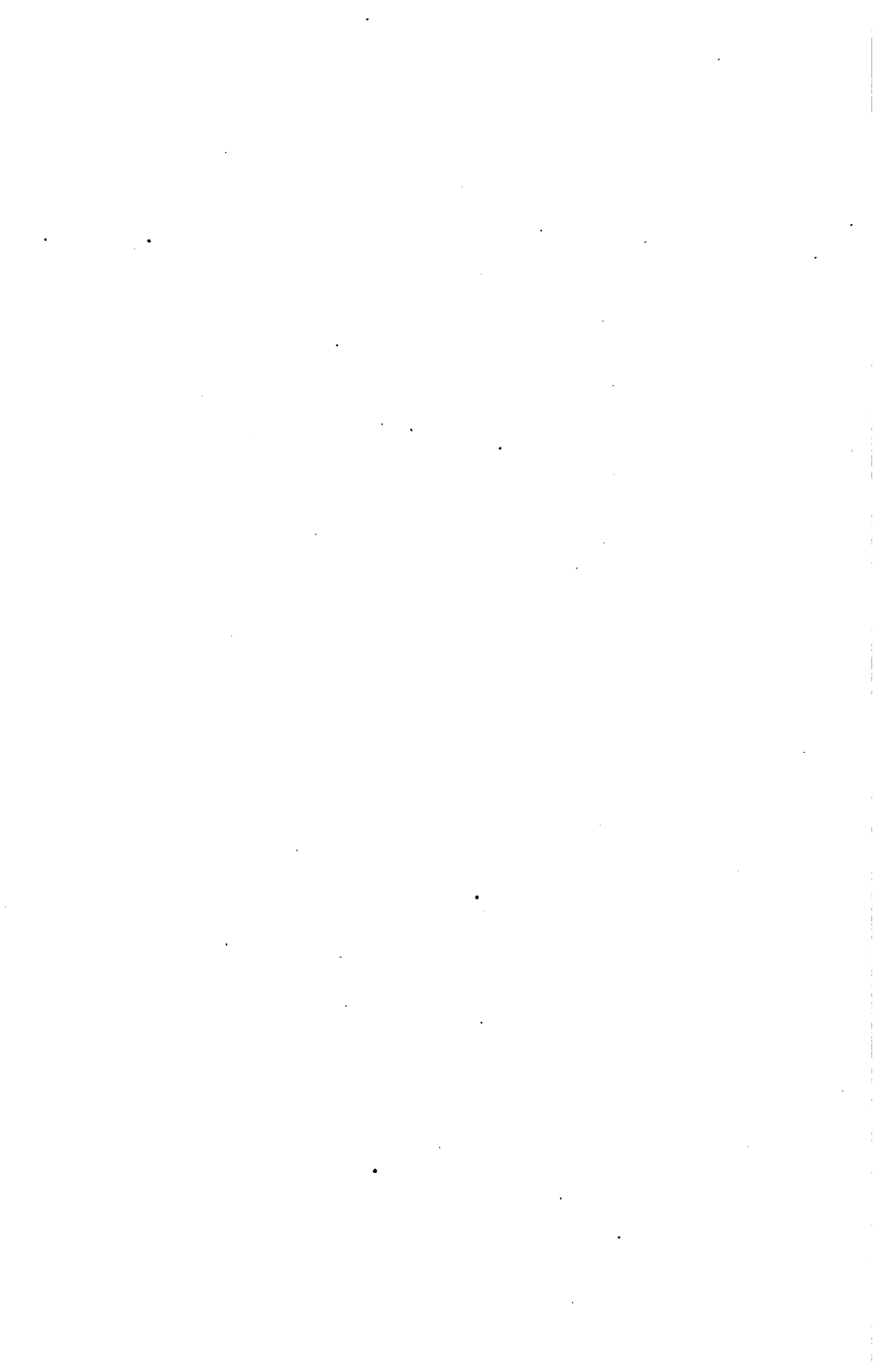
The decrease in the value of imports is reflected in the decrease in the percentage tax collected in Manila. The falling off in business taxes collected in the hemp and copra producing provinces is explained by the decrease value of hemp and copra exported during the year, as compared with the preceding year, while the increase in the value of sugar exported is accompanied by an increase in the business tax collections in the provinces where sugar is grown and marketed.

Respectfully submitted,

VICTORINA MAPA,

Secretary of Finance and Justice.

To the PHILIPPINE COMMISSION.



REPORT OF THE SECRETARY OF PUBLIC INSTRUCTION.

SIX MONTHS ENDING DECEMBER 31, 1913.

GENTLEMEN: I have the honor to submit the thirteenth regular report of the secretary of public instruction. Because of the change of the fiscal year to coincide with the calendar year, the report covers only the six months ending December 31, 1913.

As you know, I assumed office as secretary of public instruction on the 1st of December, but did not arrive in Manila until after the close of the year. In consequence, the matters referred to herein were transacted under my predecessors, and I shall not endeavor to do more than make a brief report of these matters, reserving my comments and recommendations for a later period.

On the 16th of October Hon. Newton W. Gilbert, who for the past few years has occupied the office of secretary of public instruction, left the Philippine Islands on leave of absence, and subsequently resigned from the service. Following his departure and until I arrived the affairs of the department were administered by the Hon. Rafael Palma, the senior member in point of service of your honorable body.

I shall review the work of the department under the headings of the several bureaus.

BUREAU OF EDUCATION.

Following the death of Mr. Frank Russell White, on August 17, Mr. Frank L. Crone was in September promoted to the directorship; Mr. Charles H. Magee to be assistant director; and Mr. John D. De Huff, theretofore superintendent of city schools, to be second assistant director of education. These gentlemen have entered upon the discharge of their duties.

The allotment of ₱150,000 which last July the Governor General made for the purpose of opening a thousand new primary schools was supplemented by the legislature in November by an appropriation of ₱175,000, thus providing the sum necessary to maintain these schools during the year. This increase has been followed by an increase of more than 100,000 in attendance. For September, which may be taken for a typical month, the enrollment was 525,959. Of these boys and girls, 486,511 were in the primary grades, 33,579 in the intermediate grades, and 5,869 in the secondary grades. The total number of schools was increased from 2,934 in March of last year to 4,304 in September. In August the percentage of attendance was 89.

The following synopsis of the organization of the bureau of education, which is taken from the current report of the director, may be of interest:

The general office of the bureau, as organized at the present time, consists of the offices of the director of education, the assistant director of education, and the second assistant director of education, the office of the chief clerk, and

seven divisions—property, accounts, industrial instruction and publications, technical, buildings, academic, and records. To each director there are assigned certain lines of work. The director has under his direct charge the following: Salaries, discipline, appointments, assignments of teachers, buildings, appropriations, and questions of policy and administration. The assistant director: Industrial instruction, property, and, for the present, office management. The second assistant director: Publications, statistics, except industrial information, courses of study, textbooks, and examinations. In addition to the duties enumerated, both assistant directors attend to such special duties as the director may assign to them.

The field organization of the bureau of education consists of 37 divisions, including the Philippine Normal School, the Philippine School of Arts and Trades, and the School of Household Industries, which are considered as distinct divisions, and the Philippine School of Commerce and the School for the Deaf and the Blind, which are insular schools under the administration of the superintendent of the city of Manila.

Under the control of division superintendents are 33 provincial schools, all of which give one year of high-school work, 27 two years, 17 three years, and 14 the full high-school course. There are 17 provincial trade schools, not including the Philippine School of Arts and Trades, the principals of which respond directly to the local division superintendent, the remaining provinces being supplied with manual-training departments attached to the provincial high schools. The divisions are divided into districts, the lowest number for any province being 2, the highest number 15, in charge of supervising teachers, who respond directly to the division superintendent of schools. Of the 314 supervising teachers, 185 are Americans and 129 Filipinos. In addition, 33 provinces are supplied with division industrial supervisors. The total number of industrial supervisors is 78, of whom 44 are Americans and 34 Filipinos. There are in the various provinces, including the trade schools, 277 intermediate schools. Of this number 120 respond directly to the local division superintendent of schools, while the remainder are directly under the control of supervising teachers. As a general rule the important intermediate schools are independent of the control of the supervising teacher.

The duties of the supervising teacher are thus outlined by the director:

While the duties of the directors of education and division superintendents are readily understood, there seems to be a lack of understanding as to the functions of supervising teacher. This is due somewhat to the fact that the supervising teacher is often referred to as a "supervisor." The bureau of education has been very careful to retain the term "supervising teacher," since it exactly expresses the function of this official. He is not only a supervisor, and as such in charge of the business control of the schools within his district, but he is in every sense a teacher, and the greater part of his work will consist of teaching for some time to come. The nature of the instruction given by the supervising teacher changes from year to year. At first a large number of the teachers were in the lowest primary grades. As long as this was true it was necessary for the supervising teacher to confine his efforts largely to instructing his teachers in the most elementary work. It often happened that the teachers taught one day what they had learned the day before. As soon as the teachers reached a certain degree of academic attainments the instruction took the direction more and more of training in methods, school organization, etc.

At the present time, although a large majority of the teachers have completed the intermediate course, and although many are of secondary attainments, few, if any, enter the school service with a thorough knowledge of school organization and methods of teaching. Strictly speaking, the supervising teacher serves as a critic teacher, and must guide and direct the teachers under his charge. He must ascertain their weaknesses and correct them as far as is possible. He must teach them how to keep their registers and make reports. He is in a position to advise his subordinate teachers as to the best manner of dealing with the people of his community. Athletics, industrial work, and school programs require his careful attention.

In addition to these functions as a teacher, the supervising teacher has many other duties. He either makes out or approves pay rolls and expense accounts. This is no small task, especially if he is in one of the larger districts which may contain as many as 11 towns. If a school building is to be constructed, much of the work of securing a suitable site falls on him. In most

cases he takes the initiative. In securing temporary school buildings much of the work falls on the supervising teacher, even if the municipal officials are energetic and helpful. Before the people of the community he represents the bureau of education, and questions come to him constantly for discussion and decision. He is expected to make out attendance reports, special reports as called upon, and to handle the property of the schools of his district. In many cases the supervising teacher has taken so deep an interest in the people of his district that he finds his spare time taken up in service to the community in general. Many have supplied themselves with simple remedies to treat the various diseases which are easily cured at the beginning but which result in the death of many people annually. While there has been no epidemic in recent years, the experience gained during the cholera outbreak of 1902 and epidemics of fever since that time leave no doubt that the supervising teachers stand ready to help wherever they may be, even where their own lives may be endangered.

FINANCES.

The regular appropriation for the bureau of education for the six months amounted to ₱1,810,000 for work in the Christian provinces and ₱126,850 for the support of non-Christian schools. In addition, there were appropriations for the school year of ₱50,000 for the support of teachers who were sent to insular schools for further instruction, ₱30,000 for the support of students receiving similar instruction, and ₱50,000 for the maintenance of the School of Household Industries. For the construction of school buildings ₱250,000 were available during the fiscal year for aiding municipalities in the construction of barrio schools and ₱150,000 for aiding municipalities in the construction of central school buildings.

Provincial support.—Provinces are authorized to support provincial, secondary, agricultural, commercial, and normal schools. The bureau of education furnishes the teachers; the provincial expenditures are limited to the construction of school buildings, rent, and miscellaneous incidental expenses. Figures are not at hand yet to show the amount spent during the period covered by this report, but during the last fiscal year the sum was ₱183,285.63.

Municipal support.—The majority of the schools are supported by the municipalities in which they are located. They furnish the teachers and pay the expenses of the schools. Municipal revenues for these purposes are derived from the land tax, a proportion of the internal-revenue collections, and direct transfers to the school fund from the general fund of the municipalities. During the last fiscal year municipalities paid for the support of their respective schools the sum of ₱2,211,091.36.

TEACHING FORCE.

The most important work which the schools have been called upon to do is the training of Filipinos to serve as teachers in them. For this purpose the normal school was created, and recently there has been established in the university a course in teaching. For several years the government has also made direct appropriations to enable promising teachers to take additional study and training in special schools, and to send each year to these schools a number of the brightest pupils in the various public schools, in order that they might be directly trained for teaching. In this way a satisfactory Filipino teaching force has been built up and insular teachers receive a fair salary for their services. On the 31st of last March

there were employed in the public schools some 9,483 teachers, including about 150 student apprentices. Of these, 7,671 were municipal teachers—that is, they are employed by and receive their salary directly from the municipalities; 1,812 were insular teachers—that is, they are employed by and receive their salaries directly from the bureau of education—658 were Americans; and 1,154 were Filipinos. The American teachers were employed in the following work:

	Teaching.	Supervising.
Primary.....	15	.....
Intermediate.....	166	.....
Secondary.....	153	.....
Industrial.....	76	.....
Supervisors.....	.....	42
		206

The average annual salary received by insular Filipino teachers is ₱609.54. This, however, includes a number of teachers in the non-Christian provinces who receive small salaries. If those are eliminated the compensation of Filipino insular teachers averages ₱654.95 a year. The average annual salary of American teachers is ₱2,793.19. It will be seen at once, therefore, that if the teaching force should be completely Filipinized there would be a saving of over ₱1,000,000 a year in the insular school budget.

There is no difficulty in obtaining municipal teachers. During the past school year 10,938 boys and 4,102 girls completed the primary course, while 3,643 boys and 1,052 girls completed the intermediate course. From this number an adequate supply of municipal teachers can, of course, be drawn. The substitution of properly trained Filipino for American teachers is more difficult, however, inasmuch as the work which they are called on to perform requires that they must have completed the secondary, and, in some cases, a university course. During the past school year 284 boys and 58 girls completed the secondary course, while the director of education states that during the present year nearly 400 boys and 75 girls will be graduated therefrom. The majority of these graduates would be qualified to teach in intermediate schools, and some, perhaps, in secondary schools. In addition, a large number of young men and women are graduated each year from the normal school and the university. These graduates should be qualified to occupy any position in the teaching force where experience is not a prerequisite. It is not desirable, nor would it be possible, completely to Filipinize the schools at the present time, but it would seem that as the American teachers from time to time leave the service, their places should be filled by young Filipinos who have been trained in the public schools, and that now there is a sufficient supply to take their places. In view of the decreased revenues of the government, it would seem that only in this way could the normal growth of the school work be provided for.

THE DESIRE FOR EDUCATION.

The intellectual awakening of the Philippines which followed the American occupation and the establishment of a modern school system is one of the most gratifying results of American control in the

islands. Everywhere there is the keenest desire for education, and a large proportion of the boys and girls who finish one school desire to enter another, so that the demand for intermediate, secondary, and university education is far greater than can be met. Where intermediate and secondary schools have been opened it is almost impossible to close them, even though the pupils can be accommodated elsewhere and there are no funds for their support. In many cases private citizens themselves desire to raise funds for the salaries of teachers and the general expenses for schools which must otherwise be discontinued. It is because of this intellectual awakening and desire for growth and development that the American teachers have an opportunity of doing so important a work in introducing western methods and ideals, and in keeping the schools in close touch with western culture. Through the introduction of English, the people of the Philippine Islands have had access to a literature undreamed of by them, and, not only in the schools, but in the public libraries, works of history, travel, biography, and science are greatly sought, not only by the coming generation, but by many of the older generation who learned English because they found that their horizon was immeasurably widened through the reading of English prose and verse.

INDUSTRIAL INSTRUCTION.

The industrial work in the schools continues quite satisfactory. Each year sees an increase in the number of boys and girls who have learned some useful art or trade, and almost all pupils who have at one time or another been in the public schools have learned to make something with their hands.

CONSTRUCTION OF SCHOOL BUILDINGS AND ACQUISITION OF SCHOOL SITES.

During the past six months 26 Gabaldon school buildings were completed, which brings the total of these buildings up to 206, containing 780 classrooms. The various branches of the Government now possess a total of 618 permanent school buildings with 3,252 rooms. During the period from June 1 to December 31 last, 175 standard barrio sites were secured and 56 standard central sites. Our schools now possess 818 standard barrio sites and 445 standard central school sites. A standard site is one which provides sufficient ground for a lawn, gardens, playgrounds, and accessory buildings.

INSULAR SCHOOLS.

The School of Household Industries, which instructs mature women in lace making and embroidery, has continued to show satisfactory results. Its graduates now number 250. Other insular schools are in thoroughly good condition. Last June, with the co-operation of the bureaus of navigation and customs, a course in seamanship was opened in the Manila School of Arts and Trades. About 30 pupils are enrolled in this course, which, it is hoped, will furnish an adequate supply of trained navigators for interisland ships.

EDUCATIONAL WORK AMONG THE NONCHRISTIAN PEOPLE.

No changes in the character of this work have been made during the period covered by this report; in consequence there is nothing of special interest to be noted herein.

PRIVATE SCHOOLS.

The following general statement of the work of the private schools is taken from the report of the special representative of the secretary of public instruction, who deals with these matters:

The work with the private schools and colleges during the past year has been characterized in general by an eagerness on the part of the institutions concerned to become thoroughly acquainted with requirements made by the Secretary of public instruction, and by willingness and endeavor to conform to those requirements. Special attention has been devoted to the further substitution of English instruction for Spanish in the higher courses. With few exceptions all primary and intermediate work is at present in the English language. There has been improvement in the quality of instruction given. This is especially true of the primary and intermediate courses. Considerable time has been given to the introduction and standardization of industrial instruction and some progress can be reported in that important phase of school work. Athletic games have been emphasized, and not only the boys' colleges but also some of the girls' colleges have taken up the various games with enthusiasm. More uniformity has been attained in the courses in the several schools and more definite and more satisfactory arrangements have been made governing the relations of private schools among themselves and with the public schools.

The following is the list of private schools and colleges which have received Government approval:

Colleges.	Authority granted.	Date of approval.	Course adopted.	Location.
Athenæ.....	Bachelor of arts....	May 12, 1908	Standard....	Manila.
San Beda.....	do.....	May 3, 1910	do.....	Do.
Silliman.....	do.....	Feb. 11, 1910	do.....	Dumagueta.
San Juan de Letran.....	do.....	Apr. 8, 1910	do.....	Manila.
Assumption.....	do.....	June 11, 1910	do.....	Do.
Colegio Seminario.....	do.....	Jan. 11, 1910	do.....	Vigan.
San Vicente de Ferrer.....	do.....	June 16, 1910	do.....	Jaro.
San Carlos.....	do.....	Feb. 19, 1912	do.....	Cebu.
San Agustín.....	do.....	Dec. 2, 1912	do.....	Iloilo.
San Alberto Magno.....	do.....	Jan. 15, 1913	do.....	Dagupan.
San Jacinto.....	do.....	June 6, 1913	do.....	Tuguegarao.
St. Vincent of Paul.....	do.....	Nov. 19, 1913	do.....	Calbayog.
Liceo.....	High School.....	June 3, 1910	do.....	Manila.
La Consolación.....	do.....	Feb. 4, 1910	do.....	Do.
La Salle.....	do.....	Feb. 19, 1912	do.....	Do.
Assumption.....	do.....	Feb. 23, 1912	do.....	Iloilo.
St. Scholastica.....	do.....	Jan. 15, 1913	do.....	Manila.
Burgos Institute.....	do.....	Jan. 20, 1913	do.....	Do.
Colegio-Mercantile.....	do.....	May 21, 1913	do.....	Do.
St. Bridget's Academy.....	do.....	June 19, 1913	do.....	Batangas.
Ntra. Sra. del Rosario.....	do.....	Jan. 20, 1913	do.....	Manila.
Centro Escolar.....	do.....	Jan. 11, 1911	do.....	Do.
Colegio-Seminario.....	do.....	Jan. 15, 1913	do.....	Nueva Caceres.
Rosary.....	Intermediate.....	Jan. 11, 1911	do.....	Vigan.
La Concordia.....	do.....	do.....	do.....	Manila.
Sta. Isabel.....	do.....	do.....	do.....	Do.
Inmaculada Concepción.....	do.....	June 28, 1911	do.....	Cebu.
Instituto de Mujeres.....	do.....	Feb. 23, 1911	do.....	Manila.
Sacred Heart.....	do.....	Aug. 16, 1913	do.....	Tuguegarao.
Sta. Isabel.....	do.....	Aug. 11, 1912	do.....	Nueva Caceres.
St. Agustín's School.....	do.....	Jan. 15, 1913	do.....	Tagudin.
Jaro Girls' Academy.....	do.....	Feb. 26, 1913	do.....	Jaro.
Industrial School Rep.....	do.....	do.....	do.....	Do.
Sta. Rosa.....	do.....	Jan. 15, 1913	do.....	Manila.
La Beaterio.....	do.....	Feb. 10, 1913	do.....	Do.
St. Agnes Academy.....	do.....	Dec. 2, 1913	do.....	Albay.
San José.....	do.....	Feb. 16, 1912	do.....	Jaro.
Tondo Convent.....	Primary.....	Feb. 26, 1913	do.....	Manila.
Holy Ghost.....	do.....	Aug. 16, 1913	do.....	Tayum.
Light of To-morrow.....	do.....	Dec. 16, 1913	do.....	Malabon.

NOTE.—Colleges having authority to grant the degree of bachelor of arts have also authority to grant primary and intermediate certificates and high-school diplomas.

BUREAU OF AGRICULTURE.

Conditions as regards staple crops have been satisfactory during the past six months. At the time of planting it seemed that the rice crop, which would be harvested during the latter part of 1913, would be as large as the unusual crop of the preceding year. During the growing season, however, weather conditions were not favorable, so that the yield is estimated to have been some 20 to 25 per cent less.

The area planted to corn continues slowly to increase, and it is believed that when the figures have been compiled a slight increase in the yield per hectare will also be found. Corn has become one of the staple crops of the islands, and its planting is widespread throughout them. The sugar crop should equal, if not prove greater than, that of last year. There is also an increase in the output of centrifugal sugar. This is most satisfactory and encouraging, inasmuch as centrifugal sugar commands a much higher price than native sugars. At the San Carlos factory planters received as much for their cane direct from the fields as they formerly received for their manufactured sugar. Several modern plants have been installed during the year, and several are in process of construction.

During the first half of the last six months there was a fair output of copra, but in Laguna and Tayabas, which are large producers of this product, a severe drought greatly reduced the production for November and December.

While the tobacco crop is not large, it is fairly satisfactory. The production of hemp has gradually increased, but the quality, unfortunately, continues to be low. The amount of maguey planted continues slowly to increase, while the quality of the fiber remains practically as it has been heretofore.

There have been no serious outbreaks of rinderpest, and the area of infection has been steadily reduced. Although the number of provinces infected at the close of the year was the same as on June 30, the number of infected municipalities was reduced from 23 to 16; and of infected barrios from 71 to 20.

The locust pest, which at one time threatened to sweep the islands, was fortunately kept under control by means of a thorough organization of a trained force in the bureau to combat it.

During the period covered by this report the number of permanent American employees has been reduced from 91 to 89, and the temporary employees from 64 to 58. The number of permanent Filipino employees has been increased from 70 to 77, while the temporary employees have been reduced from 266 to 227. These reductions have come largely through retrenchment in the veterinary division. On December 31 there were in the bureau 145 American employees and 304 Filipino employees of all grades and classes.

DIVISION OF ANIMAL HUSBANDRY.

This division has to do with the purchase of live stock required by the insular government and the city of Manila; the sale of animals raised by the bureau; the management of the Alabang and Trinidad stock farms; and the supervision of public live-stock breeding. During the period of this report 152 animals were purchased and 98 sold. For breeding purposes 3 stallions and a number

of high-grade Berkshire hogs were imported from the United States.

Nothing noteworthy has taken place at the Alabang stock farm. The work of fencing has been continued. Pastures planted with paspalum have become available, and the brood mares and young stock turned into them for pasturage were kept in thoroughly satisfactory condition. One of the most important features of the work done at Alabang is the raising of high-class boars for breeding purposes, and to this end quarantine shed No. 4 has been remodeled as a swine shed.

At the Batangas breeding station it has been demonstrated that pure-bred stallions may be subsisted on forage grown locally, and Rhodes grass has been substituted for timothy hay. Public livestock breeding was carried on in Batangas, Catanduanes, Manila, Rizal, Ilocos Sur, the Mountain Province, and Occidental and Oriental Negros.

VETERINARY DIVISION.

No shipments of cattle or carabao were received from Indo-China, while 70 head of dairy and breeding cattle were imported from Australia. On December 6 General Order No. 31 was promulgated, providing for the importation of cattle and carabao from French Indo-China at the port of Iloilo, where they are to be immunized against rinderpest. During the same month a veterinarian was sent to Hongkong to immunize cattle and carabao which it is proposed to import under the provisions of General Order No. 4, dated November 8, 1911.

Shipments from interisland ports to Manila amounted to 3,525 cattle and 1,003 carabaos. These animals are now subject only to a 10 days' quarantine in Manila.

Rinderpest campaign.—On July 1, 1913, rinderpest was known to exist in Albay, Bulacan, Cagayan, Ilocos Norte, La Union, Pampanga, Pangasinan, and Tayabas. On December 31, of these provinces, only Cagayan, Ilocos Norte, Pampanga, and Pangasinan were known to be infected, while the disease had reappeared in Batangas, La Laguna, the Mountain Province, and Tarlac, so that the total number of provinces infected was the same. The greatest number of provinces infected at any one time during the period covered by this report was 10; the smallest 5. The number of municipalities infected at the beginning of the period was 23 and barrios 71. The number at the close of the period was: Municipalities, 16; barrios, 20; while the number of new cases per week had been reduced from 76 to 29, and the deaths per week from 54 to 22. During the entire period 1,536 cases were reported, with 946 deaths, as compared with 1,900 cases and 1,094 deaths during the preceding six months. The only province in which thoroughly satisfactory progress has not been made is Pampanga; it continues to show a greater amount of disease than any other one province.

Considerable work in the way of immunizing has been done at the Calamba sugar estate and in Ilocos Norte. Between October 1 and December 31, 1,062 animals were immunized in the municipalities of Dingras and Solsona, Ilocos Norte, with only 9 losses, and at a trifling cost for serum.

DIVISION OF AGRONOMY.

Experimental work with rice and corn has been continued. Experiments with sugar cane have been continued both at Alabang and La Carlota.

Forage crops.—It has been demonstrated that Rhodes grass can be satisfactorily grown and cured in the Philippines, and that it produces a hay quite as nourishing and palatable to stock as timothy. Unfortunately the use of corn fodder is not general. With the increased production of corn a large quantity of fodder could be gathered each year, if only the people could be taught to use it.

DIVISION OF HORTICULTURE.

More positive results of an economical horticultural nature have been had during the last six months than during any previous period of the same length in the history of the bureau. Heretofore the work has been in large part preparatory. Direct benefits to the Philippine planters are now beginning to be realized. Some 50 kilos of roselle seed have been produced for distribution, and a large number of pineapple suckers have been sent out. A thousand seedlings of the alligator pear are being distributed to cooperators and planters. From the Singalong experiment station 13,500 trees, plants, roots, and cuttings have been distributed to government institutions and farmers, and over 200,000 packages of tested seeds were distributed without charge to growers.

LOCUST EXTERMINATION.

As has been stated, wide damage to the crops was threatened by the locust infestation of the present year. An additional appropriation of ₱50,000 for combating it was made by the Legislature, and through the active cooperation of insular, provincial, and municipal officials excellent results were obtained. Field operations in cooperation with provincial officials were carried on in Albay, Ambos Camarines, Sorsogon, Tayabas, Batangas, La Laguna, Cavite, Rizal, Bulacan, Pampanga, Nueva Ecija, Occidental Negros, Iloilo, Pangasinan, Tarlac, Capiz, and the Mountain Province. Aside from the field operations a large amount of important data on the locust question has been collected by the bureau, and the effect of defoliation from locust attacks on sugar cane, corn, and coconuts has been studied. It has been found that there are 10 crops seldom or never attacked by locusts which can be planted during the periods of severe infestation—camote (three varieties), mongos, camoting cahoy, gabi, ubi, cowpea, banana, tobacco, maguey, and beans.

FIBER DIVISION.

While a marked improvement has been noticed in the condition of hemp plantations, they have not yet recovered from the ill effects of the droughts and typhoons of 1912. Unless extraordinary setbacks are met with they should, during the year 1914, regain their former condition of productiveness. A large number of plantations, however, are too old and must be renewed if the industry is to be further

developed. The average quality of hemp produced in the Archipelago continues to be low and unsatisfactory. The director of agriculture gives the following explanation of this fact:

A thorough investigation of the recent tendency on the part of producers to prepare low-grade instead of high-grade fiber, or, in other words, to gain quantity at the expense of quality has shown that the fundamental reason for this action is the lack of sufficient discrimination in prices in the grades of fiber above "midway," on the part of buyers. For instance, "superior good current" and "good current" were paid for in Leyte at the rate of 30 and 25 centavos per kilo, respectively; while the prices paid at the time in Manila for the same grades were 55 and 45 centavos per kilo, respectively. On the other hand, "current U. S." and "superior seconds" were paid for in Leyte at the rate of about 18 and 14 centavos per kilo, as compared with 22 and 19 centavos per kilo paid at the time in Manila for the same grades. In other words, the Manila and Leyte prices for abacá during December were as follows:

	Price per kilo.		Difference.
	Manila.	Leyte.	
	Centavos.	Centavos.	Centavos.
Superior good current.....	55	30	25
Good current.....	45	25	20
Current U. S.	22	18	4
Superior seconds.....	19	14	5

These figures clearly indicate that the provincial buyers, while they pay legitimate prices for the grades "current" and below, hardly pay more than 60 per cent of the Manila prices for the grades "good current" and above. At the above rate the producers justly claim that it is to their advantage to prepare the lower grades. A large portion of the blame for the present predominance of inferior fiber in the market, and, as a consequence, for the present critical condition of the abacá industry in general, is justly placed upon the shoulders of the provincial and municipal buyers. The producers, during the several conferences they had with the chief of this division have expressed unanimous desire to produce a higher standard of fiber providing they receive for these grades prices in proportion to the Manila prices, as they do for the lower grades.

Conditions in the remaining abacá provinces are essentially the same as in Leyte, and the producer is helpless against the buyer who manipulates prices at his pleasure. Unless the present condition of affairs is remedied, efforts toward improving the quality of abacá will be largely futile.

Grading and baling.—In addition to the detrimental effect of the continued production of an inferior quality of abacá, the industry has recently suffered considerably from defective grading and baling of abacá and its adulteration, by provincial buyers, with damaged fiber or with fiber of a wild species of *Musa* commonly known as "pacol." This evil has not only tended to discredit abacá in the world's markets, but it has also produced a condition in the local market bordering on chaos. The house marks of some establishments are so erratic and inconstant as to render impossible a correct conception as to what grade they represent. The fiber is also often pressed damp and in such a tangled condition as to render imperative its regrading and rebaling by the exporters. As conditions exist at present, there is no general accepted standard of classification, no restriction as to manner of baling, and no protection to the exporters against defective or false grading and packing. In consequence of all this a large proportion of the fiber exported from Manila and Cebu is graded and baled twice, and the producer is, of course, indirectly paying for the mistakes, negligence, or tricks of the provincial buyers. For every ton of abacá the producer has been paying ₱28, half of which is to cover the cost of grading and baling in the provinces and the other half for the same operations repeated in Manila and Cebu.

Maguey.—As I have stated there has been a slight increase in the production of maguey. During October an employee of the bureau of agriculture was sent to Siquijor, where, on the whole, the soil is poor, for the purpose of distributing maguey and sisal plants, and teaching the farmers how to plant and care for them. This distribution will be continued on a larger scale during the present year.

Cotton.—Extensive experiments in the growing of cotton are now in process, but definite results can not be announced before the cotton plants have matured during the coming spring.

The following fiber plants and seeds were distributed during the past six months:

Maguey and sisal plants	plants	47,100
Kapok seed	kilos	30.5
Cotton seed	do	13

DEMONSTRATION AND EXTENSION DIVISION.

On February 7, 1913, the Legislature passed Act No. 2226 providing for the establishment of "stations for practical instruction in methods concerning agriculture and a system of agricultural demonstration and development." This act, which provides for the annual expenditure of ₱150,000, became effective on July 1, 1913. In order to organize the work, the bureau of agriculture divided the Archipelago into 15 agricultural districts, and it is proposed to establish in each district a station from which cooperative-plot work can be carried on with a force of traveling inspectors. On December 31 demonstration stations had been established in 10 districts and 18 provinces. These districts are as follows: District No. 1, Isabela and Cagayan; district No. 2, Mountain Province and Nueva Vizcaya; district No. 3, Ilocos Norte, Ilocos Sur, and La Union; district No. 5, Pampanga, Bulacan, and Nueva Ecija; district No. 7, Rizal, Laguna, and Cavite; district No. 8, Batangas, Tayabas, and Mindoro; District No. 9, Ambos Camarines, Albay, and Sorsogon; District No. 11, Iloilo, Capiz, and Occidental Negros; District No. 13, Cebu, Bohol, and Oriental Negros; district No. 14, Agusan, Surigao, and Misamis. Just what it is proposed to do at these stations may be gathered from the following statement of the director of agriculture regarding the work of district No. 3:

In July, 1913, an agricultural inspector was sent to Vigan, Ilocos Sur, to organize the demonstration work in this district, which includes the provinces of Ilocos Sur, Ilocos Norte, and La Union, and covers an area 260 kilometers long and from 10 to 70 kilometers in width.

The demonstration work in this district has been divided into four subdivisions—Ilocos Norte, Ilocos Sur, Abra, and La Union. Each division has a Filipino assistant inspector in charge. With the hearty support of provincial and municipal officials, 52 plots for cooperative demonstration farming were located by the end of the year. Thirty-five of these plots were secured and planted before the end of the rainy season. The remaining plots will be planted with the first rains of May or June, 1914. The demonstration plots are divided over the territory as follows:

Ilocos Norte	11
Ilocos Sur	19
Abra	10
La Union	12

So far the work in La Union has been with tobacco only; with the coming season, however, Moro maize will be planted. In the other divisions the plots were planted with Moro maize and American vegetables, the latter being sown in seed flats and later set out in the field. The tomatoes have produced well and matured fruit two weeks earlier than native varieties. Several of the cooperators have planted seeds of native citrus fruits to produce seedlings, which will be budded with better varieties. Many requests are being received for seeds and plants by farmers of this district who have seen the results obtained on the demonstration plots.

The demand for better vegetables was so great that propagation tables, holding 12 seed flats each, were placed in the Vigan and Laoag markets, and tomato, eggplant, and papaya seedlings grown for distribution to the people coming to market. Seedlings were distributed and the boxes replanted about every 15 days. This method of distribution will insure the marketing of fresh vegetables the entire year. Although only a few seedlings were given to each person, the supply did not begin to satisfy the demand. This idea has proven so successful that it will be extended to other towns of the district.

During the coming year efforts will be made to improve the native crops by better agricultural practice and to push the introduction of new varieties that have proven successful. A nursery will be established in each province from which new and better varieties of fruit will be distributed. The various municipalities will be assisted in beautifying their plazas and in extending roadside tree planting. Demonstrations of steel plows and cultivators will be made. Tobacco-seed cleaners will be placed in the tobacco-growing regions for the free use of planters.

BUREAU OF SUPPLY.

The figures given in this report are approximate, inasmuch as statements of transactions in the United States have not yet been received and verified with the figures on hand. However, it is evident that there has been a decrease in the volume of business.

Purchases during the period amounted to approximately ₱2,832,-325.19, divided as follows:

	Per cent.	Amount.
Purchased locally.....	69.5	₱1,970,047.82
Purchased in the United States.....	28.2	808,735.48
Foreign purchases.....	1.8	53,541.89

The following table shows the total volume of sales for each year since the establishment of the bureau:

Fiscal year—	Amount.	Increase (+) or decrease (-).
		Per cent.
1902.....	₱1,970,549.78	.....
1903.....	3,134,141.98	+59.05
1904.....	5,309,474.37	+69.41
1905.....	4,936,976.79	- 7.01
1906.....	3,605,250.07	-26.97
1907.....	3,311,572.52	- 8.146
1908.....	4,275,990.23	+29.12
1909.....	6,002,615.14	+40.38
1910.....	5,916,705.02	- 1.43
1911.....	7,014,021.55	+18.546
1912.....	7,518,357.20	+ 7.19
1913.....	7,001,095.83	- 6.88
1913 (July 1 to Dec. 31).....	3,174,214.43	- 9.32
Total.....	63,170,964.91	.....

There was on hand December 31, 1913, merchandise of a cost value of approximately ₱2,212,000, an increase of about ₱42,103.22. This increase is due to the receipt of a large order of roofing iron placed in May, 1913. This iron is a substitute for Apollo steel sheets which has been used and which was found to be unsatisfactory. A heavier coating of spelter has been added and practical tests have shown beyond a doubt that iron deteriorates less rapidly than steel, and, although the iron sheets with the $2\frac{1}{4}$ ounces of spelter cost more than the Apollo steel, it is believed that the prolonged life of iron roof as against steel will result in a large saving to the government.

The following table shows the percentage of operating expenses as compared with the net (cost) value of sales:

	Per cent.		Per cent.
1902-----	18.51	1909-----	6.78
1903-----	15.52	1910-----	7.54
1904-----	12.49	1911-----	6.30
1905-----	12.50	1912-----	7.49
1906-----	10.92	1913-----	7.73
1907-----	10.77	1913 (July 1 to Dec. 31)-----	7.60
1908-----	8.62		

Notwithstanding the fact that the bureau of supply moved during November and December all sections but one of its immense stock from the old rented buildings into its new bodegas in the new port district, it has still shown a reduction in cost of operation. Now that the bureau is installed in its new warehouses, and by concentration of stock and labor, the estimated cost of operation will be reduced by approximately ₱85,000.

The following table gives the volume of tonnage handled by the shipping division July 1 to December 31:

	Metric tons.
Coal-----	17,914.50
Coke-----	131.90
Cement (29,722 barrels)-----	5,379.68
General supplies:	
531,030 packages-----	22,419.96
Foreign countries (46 packages)-----	13.00
Lumber (1,878,429 feet b. m.)-----	3,756.86
Total-----	49,615.99

Changes in the personnel of the bureau during the six months' period ending December 31, 1913, were as follows: Thirteen classified Filipino clerks regularly appointed; separated from the service by transfer, discharge, and resignation, 7 classified Filipino clerks and 6 classified American clerks; promoted to the next higher rating, 8 classified Filipino clerks and 2 classified American clerks.

The changes in the temporary and emergency employees were as follows: Appointments, 10 Americans and 11 Filipinos; promotions, 1 American and 7 Filipinos; reductions, 1 American and 1 Filipino; separations, 6 Americans and 6 Filipinos; discharge, 1 American; death, 1 American—a total of 20 Americans and 25 Filipinos.

BUREAU OF PRISONS.

Mr. Mortimer L. Stewart, former director of prisons, presented his resignation, effective December 31, and Mr. L. A. Dorrington, assistant director, who had been granted leave of absence, cabled his

resignation from the United States, to take effect at the expiration of his leave. Dr. W. H. Dade, theretofore superintendent of San Ramon penal colony of the Moro Province, was appointed director of prisons. No assistant director has as yet been named.

On December 31 the prison population of the islands was distributed as follows:

Bilibid Prison.....	2,710
Iwahig penal colony.....	1,083
Working at Corregidor.....	1,149
Constabulary stations.....	62
Working at provincial prisons.....	57
San Lazaro Hospital.....	45
Hospicio de San José.....	13
Lolomboy Institute.....	29
Luneta station.....	25
Confined in provincial prisons.....	2,018
Total.....	7,191

On June 30 the total number of insular and provincial prisoners was 7,250, showing a decrease of 59 prisoners during the last six months. The average number of insular prisoners, however, was 5,322.84, an increase of 94.71 over the figures for the preceding fiscal year.

BILIBID PRISON.

On December 31, 2,710 prisoners were confined in Bilibid Prison, 167 less than were in confinement on June 30.

The number of commitments by the courts was 2,054, a decrease of 149 over the preceding six months. A considerable decrease in commitments for adultery was noted, while those for embezzlement and misappropriation of funds remained about the same.

The conduct of the prisoners has, in general, been quite satisfactory. They were divided on December 31 as follows: First class, 1,839; second class, 590; third class, 122; and 159 detention prisoners.

MAINTENANCE.

At Bilibid Prison the average total gross cost of maintenance of each prisoner was ₱0.31+; at the Iwahig penal colony it was ₱0.46+; or an average for the two institutions of ₱0.34+. The total net cost per prisoner was, at Bilibid ₱0.28+; at Iwahig, ₱0.39+; making a general average of ₱0.31+.

INDUSTRIAL DIVISION.

There was a considerable decrease over the preceding fiscal year during the six months ending December 31 in the receipts of this division. The income of the industrial division amounted to ₱147,034.62, the expenses to ₱120,924.62, leaving a profit of ₱26,110, which, added to ₱2,019.98, the profit of sales stock, shows a total profit of ₱28,129.98.

RELIGIOUS SERVICES.

Religious services have been conducted each Sunday by two regular Catholic chaplains and by volunteer clergymen representing the various denominations of the city.

PROVINCIAL PRISONS.

The provincial prisons continue to show improvement in the matter of discipline, management, and sanitation. To a considerable extent this is due to the cooperation of the constabulary authorities who make monthly inspections of the various provincial prisons and report their findings to the bureau.

SCHOOL WORK.

On December 31, 1,596 prisoners were enrolled in the schools maintained in the prisons. This enrollment was divided as follows:

Alphabet	545
Low chart	402
Advanced chart	205
First-year book	154
First reader	161
Second reader	82
Third reader	22
Teachers	25

IMPROVEMENTS.

The quarantine and contagious buildings and hospital kitchen have been completed and concrete floors laid in several buildings.

HEALTH.

The general death rate was 20.62 per 1,000 per annum—a decrease of something more than 9 per 1,000 per annum over the fiscal year ended June 30, 1913.

Tuberculosis.—The death rate for tuberculosis was 13.57 per 1,000 per annum, or almost double that for nontuberculous cases, which was 7.05. Of 627 prisoners examined for transfer to Corregidor, 129 were found clinically positive for tuberculosis. The medical authorities in the prisons are continuing their efforts to reduce the large mortality from this disease.

IWAHIG PENAL COLONY.

The colony population on December 31 was 1,176, divided as follows:

Penal colonists	1,008
Free colonists	77
Colonists' families	51
Employees' families	21
Officers and employees	21
Total	1,176

During the half year 122 colonists were received from Bilibid and 198 returned thereto.

The value of colony products turned in during the period of this report was ₱13,382.30.

BUREAU OF PRINTING.

On October 21 the resignations of Mr. John S. Leech, director of printing, and Mr. James A. Hoggsette, assistant director of printing, took effect, and Mr. E. E. Gessler, formerly superintendent of work, was designated acting director. On December 15 Mr. Gessler was named director of printing and Mr. Samuel H. Musick was promoted to be assistant director.

On December 31 there were 470 on the rolls of the bureau, of whom 441 were Filipinos, 27 Americans, and 2 East Indians. The American employees are divided as follows: Administrative, 2; craftsman instructors, 16; clerical, 6; inspecting watchmen, 2; foreman of laborers, 1. The Filipinos were classified as follows: Craftsmen, 120; junior craftsmen, 36; apprentices, 124; machinists, 1; press feeders, 2; carpenters, 4; clerks, 24; cocheros, 7; helpers, 88; laborers, 27; messengers, 8.

The cost of the product of the bureau during the period in question was ₱432,827.05.

The present property assets of the bureau amount to something less than ₱1,000,000, which does not include the value of grounds and buildings or of the stock of Official Gazettes and public documents kept for sale.

Due to the change of the fiscal year to coincide with the calendar year, it has been impossible, on such short notice as was had, to obtain much of the data that is usually available for the annual report of this department. For that reason I have had to confine myself to a somewhat general statement of conditions existing in the various bureaus under the department of public instruction. The reports of the directors of these bureaus, for the six months ended December 31, 1913, are submitted herewith, and are recommended to the study and consideration of your honorable body.

Very respectfully submitted.

HENDERSON S. MARTIN,
Secretary of Public Instruction.

To the PHILIPPINE COMMISSION.

REPORT OF THE SECRETARY OF PUBLIC INSTRUCTION.

FISCAL YEAR ENDING DECEMBER 31, 1914.

DEPARTMENT OF PUBLIC INSTRUCTION,
Manila, P. I., April 10, 1915.

GENTLEMEN: The undersigned has the honor to submit the fourteenth report of the secretary of public instruction covering the period January 1, 1914, to December 31, 1914.

The undersigned arrived in Manila shortly after the beginning of this period, and within the next few months made two rather extensive trips for the purpose of familiarizing himself with the islands and their peoples. Sixty-four towns in Romblon, Iloilo, Occidental Negros, Oriental Negros, Cebu, Bohol, Surigao, Leyte, Samar, Albay, and Camarines were visited on the first trip. On the second 34 municipalities in the Mountain Province, Ilocos Norte, Cagayan, the Batanes, Ilocos Sur, Abra, Union, and Pangasinan were visited. Although it was impossible to spend a very long time in any one town, either on these or later visits, yet the knowledge obtained has been found very useful.

During part of the time covered by this report the undersigned was absent in the United States on official business. During part of my absence His Excellency the Governor General performed the duties of secretary of public instruction; the last part of the time Hon. Rafael Palma was acting secretary of public instruction.

GENERAL STATEMENT.

Greater interest in education was shown during the year 1914 than ever before, and, notwithstanding the liberal action of the Legislature, the resources at the disposal of the bureau of education were not adequate to meet all demands. Nevertheless arrangements were made to take care of as large a number of pupils as possible with the materials and force available. In the three chief lines of work satisfactory progress was made; the standard of attainment in academic instruction was maintained, and particular attention was given to improving English instruction; physical education was engaged in by a very large proportion of all pupils, and school grounds were, in many cases, used as public playgrounds; and industrial work was standardized and adapted to meet local needs to a greater extent than ever before.

The most notable advance in the work of the bureau of agriculture was in getting into closer touch with the farmers. In 23 provinces farmers cultivated plots under the direction of the bureau staff. The distribution of selected seeds and plants, visits by inspectors, the formation of cooperative agricultural societies, and the publication of "The Philippine Farmer" helped to make the influence of

the bureau more strongly felt. Locusts and the rinderpest were troublesome, but their ravages were decreasing toward the end of the year. A useful service was rendered in pushing a popular food production campaign, an undertaking made necessary on account of the European war and the drought.

The business carried on by the bureau of supply decreased, yet the cost of operation decreased in still greater proportion. In spite of economies, however, the reduction of the surcharge from 10 per cent to 5 per cent early in 1914 made the bureau fall a little short of being self-supporting. The purchase of rice from Saigon in the amount of ₱449,661.22 was an emergency measure designed to insure stability in the local market. The division of cold storage earned less than in 1913, due to the development during the year of private firms dealing in ice and in distilled and artesian water and to the lowering of the government rates charged for ice and water.

The number of prisoners in charge of the bureau of prisons decreased about 6 per cent during the year, and there was probably a real decrease in crime. A decrease was also effected in the per capita cost of maintenance, while the ration was made more satisfactory. Various causes contributed to the reduction of the business done by the industrial division, the products of which have a deservedly good reputation for quality.

The bureau of printing continued to emphasize the training of apprentices and junior craftsmen. The work turned out showed a decrease over that of the past year, but the difference between the product and the cost of operation increased, an indication of efficient management.

The work of standardizing the private schools and bringing them more nearly up to the degree of efficiency of the public schools was continued. Advances still remain to be made, especially as regards physical education and industrial training.

On July 1, 1914, the privilege of the circulation division of the Philippine library was made free to all and the library became a real public library. This action, together with the opening of the periodical division on Sundays and most holidays, resulted in a very marked increase in the circulation of books, newspapers, and magazines. The use of the library by students from educational institutions, both public and private, increased greatly during the year.

Act No. 2324 authorized the sales agency board to close up the agency's affairs at any time, and provided that it should be abolished on and after January 1, 1915. Act No. 2438 extended the time of its existence to include February 28, 1915. The function of the agency has been not only to sell articles but also to encourage the production of commercial articles. Naturally such preliminary development work has proved unprofitable, and the financial stringency made the continuance of the agency inadvisable.

The University of the Philippines experienced a healthy growth during the year. The organization of the school of education in July, 1914, should prove helpful in preparing Filipino teachers for secondary schools. The number of students who are taking up agriculture and forestry is encouraging, but in a few of the colleges the attendance is still small, despite the fact that they offer opportunities for both useful and remunerative careers.

The public welfare board was organized during the year for the purpose of coordinating the efforts of all government agencies and influences that were interested in social service work and of all private organizations that received government support for such work. The board also aims to promote the organization of private institutions that will render a social service and to investigate social conditions, in order to determine where relief is needed and the form it ought to take. A beginning in such work was made in 1914, and pending legislation will undoubtedly soon give the board a legal status that will enhance its power for good.

Following this is a brief account of the work of the several bureaus in this department.

Respectfully submitted.

HENDERSON S. MARTIN,
Secretary of Public Instruction.

To the PHILIPPINE COMMISSION,
Manila, P. I.

BUREAU OF EDUCATION.

GENERAL STATEMENT.

THE YEAR'S WORK.

In practically every line of work substantial progress is to be reported. The following figures indicate the increase in the number of schools, teachers, and pupils:

	1912-13	1913-14
Number of schools.....	2,934	4,235
Number of teachers.....	7,671	9,462
Annual enrollment.....	440,050	621,030
Average monthly enrollment.....	329,756	489,070
Average daily attendance.....	287,455	428,552

The percentage of attendance was 88.

As a result of the establishment of additional schools, which required many new teachers, the improvement in the attainments of Filipino teachers has been less rapid than usual. The latest figures indicate that 4,196 teachers have finished the intermediate grades, 908 have finished one or more years of the secondary course, 337 are high-school graduates, 10 are graduates of the University of the Philippines, 42 are government students returned from the United States, and 240 are graduates of the Philippine Normal School or the Philippine School of Arts and Trades. The number of American teachers has been further reduced by employing a smaller number than usual in the United States, and their places have been taken by the best Filipino teachers obtainable.

The progress in academic work has been generally satisfactory. Examinations at the close of the school year 1913-14 were rather more difficult than usual in certain subjects, and the English requirements were made much more stringent, which explains many failures.

The work in good manners and right conduct is worthy of particular mention.

The progress in athletics has been remarkable. Reports from every division in the islands indicate that fully 95 per cent of the boys and girls in the public schools are taking part in athletics or physical training in one form or another, and thousands of people who have never attended the public schools are participating in games through the direct influence of the bureau's athletic program.

The program of industrial instruction has been carried out more satisfactorily than in any previous year. This result is largely due to the measures taken to provide for the standardization of industrial instruction and its closer adaptation to meet local needs.

The necessity of effecting every possible economy has held up work on the new buildings for the Philippine School of Arts and Trades, and on many municipal projects. From January 1, 1914, to December 31, 1914, 60 standard-plan buildings with 327 rooms and 5 reconstruction projects were completed. Altogether 748 permanent buildings of all classes with 3,950 rooms have been completed. During the year 268 standard school sites have been secured, bringing the total number up to 1,338.

Arrangements have been made to place the schools of the department of Mindanao and Sulu under the administrative control of the bureau of education, January 1, 1915.

CHANGES IN THE DIRECTORATE.

After the death of Mr. Frank Russel White, director of education, in August, 1913, Mr. Frank Linden Crone was appointed director of education; Mr. Charles Henry Magee, assistant director; and Mr. John David De Huff, second assistant director. Mr. De Huff returned to the United States on leave in November, 1913, and presented his resignation in March, 1914. He was succeeded by Mr. Walter William Marquardt, who was appointed second assistant director of education July 23, 1914.

Mr. Magee returned to the United States November 23, 1914, where he will have charge of the bureau of education exhibit at the Panama-Pacific International Exposition.

EDUCATIONAL PROGRESS SINCE THE AMERICAN OCCUPATION.

Since the establishment of the bureau of education, nearly 14 years ago, a great public-school system has been developed. This achievement has been made possible only through persistent struggles against adverse conditions. Buildings and equipment have had to be renewed and teachers have had to be trained. The people, in general, have had to be educated to appreciate the value of the public schools, and their interest in them and their readiness to support them is in distinct contrast to the apathy which existed at the time the system was founded. Their change of attitude is an indication of an intellectual awakening which scarcely finds a parallel in history.

AIMS AND PURPOSES OF THE BUREAU OF EDUCATION.

In determining aims to be achieved through the activities of the bureau of education, definite recognition has been given to the principle that public schools exist for the purpose of giving to each and

every citizen an education which will fit him for the freest, happiest, and most efficient life possible in the sphere to which his activities will probably be confined.

Briefly stated, the problem which the government must face is, first, to give the great mass of the population a primary education; second, to give an intermediate education to those who will constitute the substantial middle class of the country; and, third, to provide secondary and higher instruction for those who are to assume leadership in thought and action.

It is the aim of the bureau of education to bring 800,000 pupils into the public schools at the earliest possible date. There are approximately 1,200,000 children of school age in the islands, while the total annual enrollment for the school year 1913-14 was 621,000, and for the present school year it will approximate 630,000. At first thought it would appear that fully one-half of the children of the Philippine Islands are being totally neglected. This, however, is not the case, for under present conditions a considerable proportion of boys and girls do not pursue their studies beyond the age of 10 or 11 years. Provided the enrollment for each year remains at about 600,000, there is, therefore, a constant tendency for the number reached by the schools to approach in a period of years the total number of school age in the regions where schools have been established.

If facilities were available, however, it is believed that 200,000 more children would enter school without the use of compulsion and without placing schools in villages where the attendance would fall much under 40. After approximately 800,000 were in school the problem would change somewhat, for it would be necessary to extend the school system to include barrios where the number of pupils would be extremely small and to make some provision for those children who belong to families more or less isolated.

Consideration has been given to the advancement of the salaries of municipal teachers, and in spite of inadequate municipal school revenues progress has been made. As fast as conditions permit provision will be made for further increases in the salaries of municipal teachers, who, as a class, are greatly underpaid. At present the aim is to increase the average salary to ₱30 and to fix the minimum salary at ₱20. This schedule would meet the situation for the next year or so, at the end of which time it would be necessary to make further salary adjustments.

FINANCIAL SUPPORT OF PUBLIC-SCHOOL WORK.

INSULAR.

The current appropriation of the bureau of education made available for educational work in all provinces, including the non-Christian provinces—Mountain, Nueva Vizcaya, Agusan, and Bukidnon—the sum of ₱4,078,033.50.

This sum was augmented by the following supplementary appropriations:

Act No. 2388, for the establishment of the Philippine Nautical School, in the sum of.....	₱15,000
Act No. 2398, for non-Christian pensionados to insular schools, in the amount of.....	2,750

By Act No. 2406, passed by the Philippine Commission July 14, 1914, ₱21,000 additional was appropriated for the extension of educational work in the Mountain Province. This amount was later reduced by ₱1,800 to provide for an irrigation project, leaving available a balance of ₱19,200.

To the current appropriation should also be added balances from the following acts brought forward from the previous fiscal year:

Act No. 1984, teacher pensionados.....	₱26,324.02
Act No. 2288, for support of 1,000 primary schools, for property and inspection.....	23,036.83

making a total available for current expenses of the bureau of education in the amount of ₱4,145,144.35 and for the Mountain Province, ₱19,200, making a total for expenditure for education under the direction of the director of education of ₱4,164,344.35.

This amount included provision for various special activities of the bureau which were formerly provided for by special appropriations, including student and teacher pensionadoships, the support of the School of Household Industries, and the support of the school in non-Christian provinces.

The appropriation also provided insular aid for the support of the 1,000 new primary schools authorized by Act No. 2288, for the barrio schools originally authorized under the Boyles Act No. 1866, for the support of schools on friar-land estates, and for special schools in Palawan and Mindoro, for the period July 1, 1914, to December 31, 1914, only. As the appropriation for the fiscal year July 1 to December 31, 1913, provided insular aid for a full-year period, July 1, 1913, to June 30, 1914, and this money was transferred to the provincial treasurers prior to December 31, 1913, the aid given by the bureau of education during the calendar year 1914 was less by ₱151,356 than the amount actually required to maintain the schools as established for one full year.

The following appropriation bills for permanent improvements were also passed by the Legislature:

Act No. 2378, for aid to municipal governments in the construction of central and intermediate school buildings, to be allotted by the secretary of public instruction, in the sum of.....	₱135,000.00
For buildings at the Central Luzon Agricultural School, Nueva Ecija, in the sum of.....	15,000.00
Total.....	150,000.00
Act No. 2029, for aid to municipalities in the construction of permanent barrio schoolhouses.....	250,000.00
Under acts Nos. 1638, 1959, 1989, 1994, 2029, 2059, 2070, 2194, 2264, and 2283, which appropriated sums for buildings, balances were brought forward from previous fiscal years amounting to----	530,516.98
Total of funds available for permanent improvements.....	930,516.98

PROVINCIAL.

The provinces are authorized by law to support provincial secondary schools, agricultural, commercial, and normal schools. The provinces furnish practically no teachers, and provincial expenditures for school purposes are limited by present regulations, although not by law, to the payment of rent, wages of janitors, the construction and repair of buildings, the purchase of furniture, machinery,

and other equipment, and the improvement of school grounds. During the year 1914 approximately ₱246,377.17 of provincial funds was expended for educational purposes.

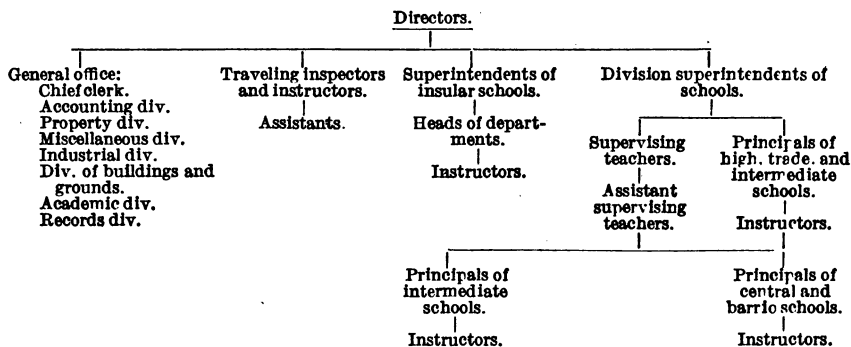
MUNICIPAL.

In addition to the municipal school revenue from the land tax, internal-revenue collections, and transfers from general funds, voluntary contributions in the form of money, materials, and land have been generously made by the people of many municipalities. It has been suggested that legislation be enacted which will permit municipalities, in their discretion, to increase the land tax for school purposes. Pupils' funds have also helped in financing minor school activities.

The total municipal school income from regular sources during the year 1914 amounted to approximately ₱2,234,142.66, while expenditures totaled ₱2,440,337.55.

ORGANIZATION OF THE BUREAU OF EDUCATION.

The following chart indicates graphically the present organization of the bureau of education:



Responsibility for the conduct of school work rests upon the director of education, who has under his immediate charge the assignment of teachers, buildings, appropriations, and questions of policy and administration. The assistant director has charge of industrial instruction, property, museums, and normal institutes; the second assistant director, of publications, statistics, textbooks, industrial information, and examinations. In addition to the duties enumerated, both assistant directors attend to such special duties as the director may assign to them.

The field organization of the bureau of education consists of 37 divisions, including the Philippine Normal School, the Philippine School of Arts and Trades, and the School of Household Industries, each in charge of a division superintendent, who is responsible to the director. The 34 provincial divisions are divided into districts, the smallest number in any Province being 2, the largest number 15, in charge of supervising teachers, who are under the immediate direction of the division superintendent of schools. Of the 240

supervising teachers, 138 are Americans and 102 Filipinos. In addition to these supervising teachers, 33 divisions are supplied with division industrial supervisors; and there are attached to the general office 20 industrial instructors and inspectors, who give attention to provincial needs. The total number of industrial supervisors is 113, of whom 54 are American and 59 Filipinos. Seven divisions have academic supervisors.

Under the control of division superintendents there are 35 provincial high schools and 18 provincial trade schools, not including the Philippine School of Arts and Trades, the principals of which are responsible directly to the division superintendents of schools. Of the 277 intermediate schools, 120 of the most important are directly responsible to the local division superintendents, while the remainder are under the control of the supervising teachers.

THE AMERICAN TEACHER.

The American teaching force is now about 80 less than during the school year 1913-14. It is believed that the number of American teachers should be maintained practically as it stands for some time to come. If all graduates of the University of the Philippines should enter the teaching service it would be a number of years before an adequate number of Filipinos were prepared to handle secondary instruction.

The American teaching corps ranks very high, both in education and efficiency. The bureau of education has been able to secure high-grade teachers at a comparatively low entrance salary by holding out the hope of advancement in the service.

THE FILIPINO TEACHER.

The problem of securing adequately trained teachers has always been, and is still, one of great importance. The Philippine Normal School, the Philippine School of Arts and Trades, the provincial secondary schools, the intermediate schools, and the University of the Philippines have prepared teachers. Other agencies for the training of teachers are teachers' classes held by supervising teachers, division normal institutes, and teachers' vacation assemblies at Baguio and Manila.

A consistent attempt has been made to gradually increase the salaries paid both insular and municipal teachers. At the present time the salary situation of insular teachers is satisfactory, the average being ₱600 per year for all teachers and ₱650 for those in the Christian Provinces. The average salary of the 7,578 municipal teachers in March, 1914, was ₱21.34 per month. To fix the minimum salary at ₱20 and the average salary at ₱30 is highly desirable, but it would involve an increased expenditure of more than ₱700,000 per year, which is out of the question in view of the present condition of government revenues.

The question of equal salary for American and Filipino teachers has always been a difficult one. The employment of American teachers at larger salaries is largely accounted for by the following considerations: (1) With a few exceptions, their academic and professional attainments are much greater; (2) they render service at a

great distance from their homes; (3) they are employed on the basis of the much higher scale of salaries in the United States; (4) their living expenses in the Philippines are much greater; (5) they are compelled to make expensive journeys to the United States frequently in order to retain their health and efficiency; (6) the revenues of the country are not sufficient to permit the payment of similar salaries to a larger number of teachers.

The need of trained teachers of high attainments who have had valuable experience in teaching and organizing schools makes the employment of American teachers necessary, but they are also needed (1) to give the people a common language to serve as a medium of the highest culture and as a factor in national unity; and (2) to bring the Filipino youth into contact with democratic ideals embodied in personalities, for no agency is so potent in the establishment of a democratic social order as personal relationships with those who, in thought and action, reflect democratic principles.

Justice requires that Filipino teachers be given every opportunity to do the highest class of work for which they are prepared and that they receive adequate compensation. They are being given the chance to assume new responsibilities, but they are not being prepared rapidly enough to supply the places of all Americans who resign. The government should provide enough funds to pay Filipino teachers as much as they would receive if engaged in other occupations requiring similar qualifications and the same energy and ability. In the insular teaching force we have been gradually approaching this very desirable situation, but it has not been possible in the municipal teaching force.

The teaching force, both American and Filipino, is to be commended for its energy, loyalty, and devotion to duty. A great majority of teachers not only have shown these qualities in their work of teaching and supervising, but also by tact and sympathy have earned for themselves places in their communities that make their influence for good felt in every direction. Nowhere is there offered the teacher the opportunity of rendering service of greater significance than in the public schools of the Philippines, and nowhere are teachers making a better use of their opportunity.

CONVENTIONS, ASSEMBLIES, AND INSTITUTES.

Conventions, assemblies, and institutes are agencies employed to secure information to be used in deciding the policy of the bureau of education and to train teachers for their many duties.

Every year all division superintendents and head teachers are brought together for at least a week. Committees study and report upon general conditions and specific lines of work. The discussions held enable both directors and superintendents to get in touch with one another's problems and to come to agreement upon various debatable points of policy or procedure. The thirteenth annual convention of division superintendents will be held in Baguio May 17 to 21, 1915.

Every year since 1908 several hundred American and Filipino teachers at their own expense have availed themselves of the privileges of the camp maintained by this bureau at Baguio. Noted lec-

turers give courses upon educational and other subjects, and conferences are held for supervising teachers, for industrial teachers, and for high-school principals and teachers. In 1915 a special course for Filipino supervising teachers will be given.

In 1914 a limited number of selected teachers from the provinces took definite and clearly outlined courses in the Philippine Normal School and Philippine School of Arts and Trades, and in turn taught them to their fellow provincial teachers at the division normal institutes. This new plan proved so satisfactory in standardizing industrial instruction that it will be continued in the 1915 vacation assembly. In addition to industrial work, special stress will be placed upon music, drawing, penmanship, and methods of teaching.

In 1914 in 33 provinces Filipino teachers were convened for division normal institutes. Five weeks' instruction similar to that given in the vacation assembly at Manila, but adapted to meet local needs, was offered by the best American and Filipino teachers available. From time to time teachers' classes are held by supervising teachers in order to help the classroom teachers and principals to solve the various problems of school administration.

TEXT-BOOKS AND PUBLICATIONS.

To-day all primary and intermediate texts, with the exception of music and most supplementary texts, have been prepared for the Philippine schools. Special secondary texts in commercial geography, colonial history, and economic conditions have been published, and chapters of Philippine material have been added to the texts in physical geography, United States history, and biology. These books are adapted to the needs of the Philippine schools and students and compare favorably with similar texts in the United States. A committee carefully considered texts in 1913, pointed out desirable changes, and recommended adoptions for a 5-year period.

INSULAR SCHOOLS.

Include the Philippine Normal School, Philippine School of Arts and Trades, Philippine School of Commerce, Central Luzon Agricultural School, the School for the Deaf and the Blind, the School of Household Industries, and the Philippine Nautical School. In all of these schools the attendance for 1914 was great, and good work was done. The records of graduates show that the training given is preparing them for efficient work in the service of the government and in business and industry.

SCHOOL WORK AMONG THE NON-CHRISTIANS.

GENERAL STATEMENT.

The importance of education among the non-Christian people is shown by the fact that they form about 12 per cent of the population of the Archipelago, and that about 50 per cent of the land area is either inhabited by them or is more or less under their control.

Public schools are maintained for non-Christians in both the non-Christian and the Christian provinces. Since January 1, 1914,

schools in the non-Christian provinces have been supported from the regular appropriation for the bureau of education. In addition, Act No. 2406 provided ₱19,200 as special insular aid to the schools of the Mountain Province. Schools for non-Christians who reside in the Christian provinces are supported from the regular appropriation of the bureau and from provincial special non-Christian funds. Schools are also maintained in the non-Christian provinces for the large number of Christians who inhabit them.

During 1914 increased attention has been given to the education of the non-Christians. During the school year 1913-14, 89 schools, having an average daily attendance of 3,506, were maintained in Nueva Vizcaya, Bukidnon, Agusan, and the Mountain Province. For non-Christians in the Christian provinces 50 schools were conducted, with a daily average attendance of 1,640.

IN NONCHRISTIAN PROVINCES.

In every phase of school work the Mountain Province has made progress, for an attempt has been made to meet the particular needs of each locality. In Nueva Vizcaya school work has been undertaken among the Igorots and Ilongots with great success. Practical training in gardening and agriculture is given in seven settlement farm schools of which two are for Igorots, three for Ilongots, and two for Negritos. The problem of the government as regards Agusan-Bukidnon is to attract the backward people to settlements. Forty settlement farm schools have helped to further this policy.

IN CHRISTIAN PROVINCES.

Twenty schools, with an average daily attendance of about 500, are maintained in Abra for the education of the Tinguianes, and the pupils have made good progress. The Aborlan Agricultural School in Palawan has been very successful in inducing the Tagbanuas to settle on a large tract of land close to the school farm, where they are taught to live in a civilized way.

The Villar Settlement Farm School in Zambales is the first for Negritos to achieve unqualified success. In Camarines a very successful school has been conducted at Consosep, and two schools have been established for a peculiar seafaring people known as the Dumagat; the one for Negritos and one for the mixed people of Moriones. At Santa Ines, Rizal, a settlement farm school was recently established for the purpose of raising the standard of living of the Remontados, whose economic condition was deplorable.

In each non-Christian school the bureau of education is giving instruction in better living to the following peoples: Moros, Tagbanuas, Negritos, Ifugaos, Kalingas, Apuyaos, Benguet Igorots, Ilongots, Dumagats, Manobos, Mandayans, and Mangyans. It has been the constant aim of the bureau of education to make the policy of the schools in the non-Christian provinces coincide as closely as possible with the policy of those responsible for the general government of these provinces. The schools have operated to reduce tribal antagonisms, and in this way have been of assistance to provincial authorities.

It is with deep regret that I report the death of Mr. John H. Finnigan, who was responsible for much of the improvement in Aborlan during the past few years. He was killed December 1, 1914, by escaped convicts from the Iwahig penal colony. Mr. Finnigan was not only superintendent of the Aborlan school, but also acted as the representative of the province in the government of the reservation.

THE DEPARTMENT OF MINDANAO AND SULU.

On August 1, 1914, a member of the bureau of education was regularly appointed to the office of superintendent of schools for the department, and on January 1, 1915, the schools of the department will come under the administrative control of the bureau. A division superintendent has been assigned to each of the provinces of Cotabato, Davao, Lanao, Sulu, and Zamboanga, and each province is being divided into supervising districts.¹ An industrial supervisor and a supervisor of industrial training for girls' schools are attached to the department office.

These changes were made possible by increased appropriations. For 1914 the total insular, department, and provincial appropriations were ₱249,888. In addition department funds in the amount of ₱20,200 were appropriated for the construction of school buildings, making a total of ₱270,088 appropriated for public instruction.

In the month of December, 1914, there were 239 teachers in the department, as against 125 for the school year 1913-14. Of these, 15 were Americans, 200 were Christian Filipinos, and 16 were Moros.

The department has provided for the organization of two types of agricultural schools, for three lines of marine work for the schools of the South Sulu district, for advanced instruction in lace making and embroidery given to older pupils and to adults in localities where the conditions are favorable, and courses of study adapted to the different localities are being worked out for girls.

Group games have been organized in nearly every school in the department, in which at least 80 per cent of the pupils participate. Indoor baseball and volley ball are the most widely introduced games.

Nine combination dispensaries and schools have been established since June, 1914, through the cooperation of the department health officer and the superintendent of schools. The young men in charge of these institutions are graduates of the Philippine Training School for Nurses in Manila. They devote approximately one-half of their time to school work and one-half to dispensary work.

DORMITORIES.

In November, 1914, Normal Hall, a three-story concrete dormitory for the girls of the Philippine Normal School, was completed at the cost of ₱300,000. Reinforced concrete dormitories for girls are maintained in connection with the high schools at Iloilo and Tacloban. Dormitories for girls are also found at Vigan, Ilocos Sur, and Bacolod, Occidental Negros, while the Leyte High School maintains

¹ The provinces of Agusan and Bukidnon which have always been under the jurisdiction of the bureau of education in educational affairs have recently come under the administrative control of the department in all other matters.

a dormitory for boys in a temporary building. Were funds available, dormitories would be established in connection with other provincial schools.

Mailag Agricultural School, the School of Household Industries, the School for the Deaf and Blind, the Central Luzon Agricultural School, the Bua Girls' School, the Bontoc Girls' School, and the Baguio Industrial School for Boys lodge and board pupils on the school premises.

THE COURSES OF STUDY.

Through a process of evolution a primary course of four years, an intermediate course of three years, and a secondary course of four years have been developed, offering instruction in academic subjects, physical training, and industrial work. The courses are adapted to the age and needs of the pupils and the conditions existing in the islands. The courses are constantly being changed as the necessity for further adjustment becomes evident. No important changes have taken place during 1913-14, but a few minor adjustments have been made.

ACADEMIC INSTRUCTION.

Industrial instruction and physical training have been established on a firm basis. While they will continue to receive adequate emphasis, the time has come for giving more consideration to the problems of academic instruction. The satisfactory solution of these problems is rendered difficult by the following: The many phases of school work pursued necessarily decrease the time available for any one school activity; in spite of consistent effort to prepare teachers, many of the present force possess inadequate academic attainments and insufficient training; the use of unsuitable buildings and inadequate equipment still exists in practically every division; the lack of sufficient revenues makes large classes a necessity, and in many places attendance is still irregular. Considering these difficulties, it is believed that the results secured in the academic subjects are very creditable.

Among the most important reasons for making English the language of instruction are the following:

(1) Linguistic unity is the most important step toward national unity; (2) English means contact with ideals compatible with democratic government; (3) English is the commercial language of the world, especially of the Far East. Although English is the language of instruction, investigations show that public-school pupils of the third and fourth grades have about the same ability in the use of the dialect as pupils who have attended the vernacular schools for the same length of time.

Supervisors of academic work have been appointed in seven divisions. Although this plan has been in operation only a short time, the good results already secured indicate the desirability of its extension.

Special attention has been directed to the first grade this year for the purpose of removing the causes which have held many pupils in this grade for an unduly long period. Authority was given to promote deserving pupils in the first three grades of the primary course

at any time during the year, and as a result several thousand pupils were advanced to the next higher grade. Emphasis has been placed upon the use of lesson plans by all teachers in the primary grades.

The stringent requirements in English, first prescribed for the 1913-14 school year, have been continued, 75 per cent in the English subjects being required and a mark being given upon the English used in every examination. The practice of permitting a choice of questions in all subjects was definitely adopted this year; a few examinations were eliminated and inspections substituted.

ATHLETICS.

The athletic program of the bureau of education consists of group games; the special forms of athletics such as baseball, basket ball, track and field sports; playground activities; color competitions; and calisthenics. The aim sought is to have every pupil take part in games or athletics that will result in his securing suitable physical training.

This athletic program has been carried out most effectively. During the school year this bureau hoped to realize its aim with respect to 80 per cent of all the pupils enrolled in the public schools, but reports from the various school divisions indicate that more than 95 per cent of the pupils are now taking part in games and athletics in one form or another.

The very general interest in athletics on the part of all classes is traceable directly or indirectly to the influence of the public schools. Other agencies have, of course, contributed their share toward the spread of athletics, but the bureau of education is primarily responsible for the general enthusiasm. The general participation in games and athletics has resulted in great improvement in the physical development of the younger generation, and the moral influence of clean, healthy sports has been felt.

INDUSTRIAL INSTRUCTION.

Steps toward the introduction of industrial and vocational work into the regular school curriculum were taken in the early days of the school system. Outlines for work began to appear in 1904-5; but from the year 1908 dates the real growth, culminating in the definite instruction along both these lines of work which to-day form an integral part of the present courses of study. Many pupils trained in different manual occupations have obtained positions at a satisfactory remuneration. This has done much to convince the public at large of the dignity of manual labor and its place in any progressive country.

The growing demand for skilled teachers in industrial subjects has been met by instruction in teachers' classes, division normal institutes, and vacation assemblies, and by a reorganization of the intermediate course to include special courses in teaching and normal industrial instruction. Of a total of 55 distinct courses offered at the 1914 vacation assembly, 43 were taught in the division normal institutes to 4,597 men and 2,140 women teachers.

Household industries, woodwork, housekeeping, and agriculture have been made the four principal lines of industrial instruction.

This bureau has undertaken to extend the established home industries and to introduce new ones to supplement agriculture and other existing industries during periods of inactivity and, by thus insuring an income during all seasons, to promote the prosperity of the entire country.

Commercial work is now given in all trade schools and provincial school shops. During the year 1914 there were 19 authorized trade schools, with an attendance of 2,304 pupils and an output of ₱147,672.62. Of this amount the pupils received ₱27,191.70 for work done outside of school hours; the cost of material was ₱77,547.96, and the government surcharge amounted to ₱27,071.13. During the same period 13 provincial school shops with 748 pupils sold ₱10,981.37 worth of work, and 267 municipal school shops with 4,722 pupils produced articles to the value of ₱37,894.28, thus making a total value of the work turned out by school shops during the year 1914 ₱196,548.27.

The 1914 insular exhibition of this bureau was held in connection with the second Philippine exposition in February, 1914. It was housed in its own special building erected by students of the Philippine School of Arts and Trades. All provinces sent samples of the industrial work made in the schools. Over 51,000 articles were placed on exhibit, valued at nearly ₱99,000.

The instruction in housekeeping aims to fit girls graduating from the primary grades to make their own garments and to cook simple meals, the ingredients and the utensils common to the average home being used. In the intermediate grades definite courses are prescribed in garment making, cooking, hygiene and sanitation, weaving, embroidery, lace making, and crochet.

The instruction in agriculture emphasizes home-extension work, seed selection, and the intensive cultivation of local and staple crops. There are 4 agricultural schools with dormitory accommodations in the islands; 8 farm schools organized as model Filipino farms, each adapted to meet conditions in its particular province; and 48 settlement farm schools in the non-Christian provinces operated as industrial communities, whose attractions are designed to induce primitive peoples to form permanent settlements. Gardening is required in all schools.

Extension work is carried on by teachers by supervising the home gardens of pupils and by visiting farmers to advise them regarding seeds and other agricultural matters. Civico-educational lectures on agricultural topics are given in the barrio schools to adults by teachers and other interested persons. Corn demonstrations, corn and garden exhibits, and corn-growing contests have been instrumental in stimulating the interest of the people in the production of both a greater and a better variety of field and garden produce.

The fact that such a large proportion of school-made articles is of a salable nature and that pupils are being trained as producers of commercial work, brings up the problem of the disposal of articles made in the schools and in the homes of the people. Furthermore, a considerable number of lines of industrial work carried on in the public schools are now so highly standardized and the prospects for introducing them into the homes so favorable that the commercial aspect of the situation is a matter of not only future, but immediate

concern. In the present stage of development of these industries government aid in marketing the product appears to be a necessity.

BUILDINGS, SITES, AND GROUNDS.

The present program of the bureau of education with reference to buildings, sites, and grounds may be summarized as follows:

(a) The construction of permanent buildings, if possible; and, if not, the construction of temporary buildings meeting certain minimum requirements.

(b) The acquisition of standard sites as a prerequisite to the allotment of insular funds for school buildings. The minimum requirement for barrio school sites is 5,000 square meters, and for central schools it is 10,000 square meters.

(c) The improvement of school grounds according to carefully prepared plans.

(d) The provision of suitable school furniture for every school.

(e) The provision of suitable sanitary facilities in connection with all public schools.

School grounds are considered as improved when they meet three or more of the following requirements:

(1) Inclosed with a woven-wire fence, with concrete or first-group timber posts.

(2) Properly filled and leveled for lawn and playgrounds.

(3) Possessed of a well-kept lawn.

(4) Provided with adequate playground facilities.

(5) Properly planted with trees and shrubs.

(6) Provided with permanently surfaced walks.

THE SCHOOLS AS A CIVIL FACTOR.

Definite training for citizenship is given in the primary, intermediate, and secondary courses. Various literary societies afford pupils practice in conducting meetings at which questions of interest to all citizens are discussed.

The public schools are making a notable contribution to the body politic. Of the 240,000 voters of the present time a considerable percentage who are qualified as voters because of education claim an education in English.

During the school year 1912-13, 10,938 boys completed the primary course, and the next year the number reached 11,398. These primary graduates for only two years constitute approximately 22½ per cent of the present voters claiming educational qualifications. The graduates of the intermediate and secondary courses are, of course, still better prepared for citizenship. In 1914, 3,540 boys and 1,045 girls completed the intermediate grades, and from them will come many local leaders. In the same year 340 boys and 67 girls completed the secondary course, which fits them for leadership in a broad way.

THE EXTENT OF ENGLISH SPEECH IN THE PHILIPPINES.

It is difficult to estimate with any degree of exactness the amount of English spoken in the Philippines. It is safe to say, however, that the knowledge of English is far more general than the knowledge

of Spanish. Aside from those who have learned English in the public schools, including 86,195 who have completed the primary course, 20,166 the intermediate course, and 1,416 the secondary course, there are many who have acquired a working knowledge of this language by picking it up in connection with their work, by home study, by study abroad, or by attending private schools.

Some indication of the spread of English is shown by the reports of the director of civil service. During the half year ending December 31, 1913, 4,377 applicants for positions took examinations in English and 490 in Spanish, as against 2,433 in English and 3,011 in Spanish for the year ending July 1, 1904.

THE HEALTH OF THE SCHOOL CHILDREN.

A pupil completing the primary course has received instruction in the fundamental principles of hygienic living, the importance of cleanliness, of wholesome food, of pure water, of fresh air, and of exercise. The work of the primary course is amplified in the intermediate course, special emphasis being placed on sanitation for the Tropics and a regular course in physiology and hygiene being given. Largely as a result of this instruction, the physical condition of the children of the public schools has greatly improved in the past few years. It is regretted that a lack of funds has prevented the inauguration in the schools of a complete system of medical inspection.

COOPERATION WITH GOVERNMENTAL AND OTHER AGENCIES.

The bureau of education has entered upon a great variety of activities that might appear to belong to other branches of the government or to charitable agencies. This condition has resulted from the fact that there has been work to do, and the bureau of education has been the organization best equipped to do it. Such action is in harmony with current thought, which is advocating the complete utilization of the schools, not only for the sake of the children themselves but also for the benefit of the community.

WHAT SUFFICIENT MONEY WOULD MEAN TO THE PHILIPPINE SCHOOL SYSTEM.

The Philippine public schools have been unable to reach over one-half of the children of school age at any one time. They have been forced to use inadequate buildings, unsuitable equipment, and poorly prepared teachers. They have been unable to give each pupil the individual attention he deserved, both in respect to instruction and health. In spite of all these circumstances that have limited progress, encouraging advancement has been made. Were there sufficient funds to put into effect all the plans of the bureau of education, both the extent and the efficiency of the service rendered would be greatly increased. The placing of sufficient funds at the disposition of the bureau would mean the following: An opportunity for every boy and girl in these islands to secure at least a primary school education; more efficient instruction of every student;

better school surroundings for every child as regards sites, buildings, and equipment; more adequate provision for the health of school children, including the employment of visiting nurses and a complete system of medical inspection of pupils; and investigations to secure facts upon which to base future changes in the course of study.

BUREAU OF AGRICULTURE.

CROP CONDITIONS.

The following brief summary shows the general condition of the staple crops of the Philippine Islands for the year ending December 31, 1914:

RICE.

The rice-planting season began two or three weeks earlier than usual, which resulted in the planting of an exceptionally large area. As the season progressed the weather conditions were highly favorable, so that by the middle of September there were excellent prospects for a bumper crop of rice. However, a long period of dry weather followed and seriously damaged the rice crop in nearly all parts of the islands. It is estimated that the crop for 1914, as a result of the drought, will show a decrease of 25 per cent below that of the calendar year 1913. The annual increase in consumption averages about 50,000 short tons of cleaned rice. Under normal conditions the Philippine Islands would have consumed a million tons of cleaned rice this year.

The experience of 1914 strongly emphasizes the urgent need for the development of irrigation works in the rice-growing provinces, particularly in Bulacan, Pampanga, Tarlac, Nueva Ecija, and Pangasinan. The losses sustained this season in these provinces would have been almost entirely prevented if adequate irrigation had been available.

CORN.

The popularity of corn as a good product continues to increase year by year. This cereal is now being used for a greater variety of purposes and is more generally planted than ever before. As a result of the educational work that has been carried on in the provinces, both by the bureau of agriculture and the bureau of education, more attention is now being given to the selection of good seed corn and to the use of improved cultural methods. The corn crop for the year ending June 30, 1914, is reported as 6,265,746 cavans, which is an increase of 44 per cent over that of the preceding year.

SUGAR.

It is conservatively estimated that the 1914 sugar crop will exceed that of the preceding year by 20 per cent. This increase is due both to the increased areas planted and to favorable weather conditions during the growing season. The milling season began slightly in advance of the usual date, because of the prospect of abnormally high prices. The San Carlos Central, which completed its first sea-

son's operation during the first part of the year, is the first large modern plant to be completed and in full operation in the islands. The results obtained at this central for the first season were highly satisfactory, and it has been an agency of no little importance in emphasizing the desirability of installing similar centrals in other sugar-producing districts. The large central of the Calamba sugar estate was completed and placed in operation during the latter part of the year.

COCONUTS.

It was not until this year that the coconut plantations fully recovered from the disastrous effects of the drought and typhoons of 1911-12. The production of copra early in the year indicated that normal production was again attained, but following the outbreak of the European war the market price dropped to a very low figure, and for a short period there was practically no market for this product. As a result of this situation production was largely curtailed. During the last three months of the year there was a material improvement in the copra situation.

ABACÁ.

The abacá plantations throughout the islands have almost entirely recovered from the effects of the 1912 drought. In the southern provinces of Luzon considerable damage was done to abacá by the typhoon of June, 1914. The first six months of the present year showed that the production of abacá was approaching its normal status, and the total production for the year would probably have exceeded 130,000 metric tons available for export had it not been for the outbreak of the European war, with the consequent drop in prices and curtailment of production. There has been a noticeable improvement in the quality of fiber produced since July, 1914. This improvement is largely due to the educational campaign now being carried on by the bureau of agriculture in connection with the new system of fiber inspection.

TOBACCO.

There has been no material change in the tobacco situation. The 1913 crop was not large nor were the prices encouraging to the producers. The crop for the year ending June 30, 1914, shows an increase in production of about 700,000 kilograms over that of the preceding year. The prospects for the new year are not encouraging as the dry season began unusually early, and there has been but little rainfall since. Many of the planters in the Cagayan Valley lost a part, or all, of their seed beds. A large amount of carefully selected tobacco seed was distributed throughout the tobacco districts previous to the planting season. Considerable interest has been shown by the manufacturers in the efforts of the bureau of agriculture to provide a satisfactory means by which the losses on manufactured tobacco due to the ravages of the cigarette beetle might be eliminated. Four of the local manufacturers have been processing their product with uniform success.

PERSONNEL OF THE BUREAU OF AGRICULTURE.

On February 15, 1914, Mr. F. W. Taylor resigned the directorship of the bureau. Mr. H. T. Edwards was detailed as acting director, and on April 1, 1914, was appointed director of agriculture. Mr. Adriano Hernandez, formerly governor of the province of Iloilo, was appointed assistant director of agriculture on May 27, 1914. There has been a decrease of 21 Americans and 6 Filipinos in the classified positions.

FOOD-PRODUCTION CAMPAIGN.

In August, 1914, following the outbreak of the European war, a food-production campaign was organized by the bureau of agriculture. The purpose of this campaign was to develop a more general interest in the cultivation of food crops, to organize different forces that might cooperate in this work, and to furnish direct assistance to individual farmers where such assistance was needed. The bureau of education, the bureau of constabulary, the local agricultural societies, and the provincial and municipal officials have furnished valuable cooperation in this work. As a result of this campaign there has been a large increase in the area planted to food crops, and thousands of families have been directly benefited.

COOPERATIVE AGRICULTURAL SOCIETIES.

In no country of the world is cooperation in agriculture more necessary than in the Philippine Islands. In June, 1914, the first steps were taken to organize both provincial and municipal agricultural societies throughout the Philippine Islands. It is proposed at a later date to unite all of those societies into one organization by the formation of an insular agricultural society having representatives in each province. At the close of the year a total of 22 provincial societies and 187 municipal societies, having a membership of over 12,000, had been organized. The interest that has been shown by the farmers in this work is highly encouraging, and there is every prospect that this cooperative movement will be an important factor in the agricultural development of the islands.

THE AMERICAN AGRICULTURAL COLONY.

In the early part of 1914 a number of private individuals organized in Manila the "Mindanao Colony Association." The purpose of this organization was to devise some means of furnishing assistance to unemployed Americans with Filipino families in the islands. The majority of the members of this organization had formerly been in the employ of the government. The Mindanao Colony Association conceived the idea of establishing an American colony similar to the Filipino colony at Cotabato, and petitioned the Governor General that arrangements be made for the establishment of such a colony. In compliance with this petition a committee was appointed to investigate and recommend a suitable site for the proposed colony. This committee visited various sites in northern Mindanao and unanimously recommended that the colony be established at Momungan, Lanao.

On April 8, 1914, the Governor General, under the provisions of Act No. 2254, set aside the sum of ₱100,000 for the establishment of American colonies, and directed that these colonies be administered by the director of agriculture. On July 15, 1914, 24 colonists with their families were sent to the colony at Momungan, and at the end of the year there were 46 families located at this place. At the close of the year it was reported that the colonists were making excellent progress and that there was every prospect for the ultimate success of the project.

PHILIPPINE AGRICULTURAL EXHIBIT AT THE PANAMA-PACIFIC INTERNATIONAL EXPOSITION.

The work of collecting and preparing a Philippine agricultural exhibit for the Panama-Pacific International Exposition was assigned to the bureau of agriculture during the year 1913. In the preparation of this exhibit emphasis was given to the four leading exports of the islands. The materials for the exhibit were collected from the larger commercial firms in Manila and from the farmers in the more productive districts of the islands.

DIVISION OF ANIMAL HUSBANDRY.

The sales of bureau breeding stock have far exceeded those of the previous year. The total receipts from all animal sales were ₱20,558, of which amount approximately ₱15,500 may be considered as receipts from the sale of breeding stock.

The demand for improved breeding animals throughout the year has exceeded the supply, and this demand is rapidly increasing, especially among the Filipino stockmen and farmers. When it is considered that live stock raising is one of the most important industries of the islands and that the value of all classes of animals, with the possible exception of carabaos, could be increased from 25 per cent to 50 per cent by upgrading, the importance of the work of introduction and production of improved breeding animals is very evident.

PUBLIC LIVE-STOCK BREEDING.

Generally speaking, the work accomplished during the year under this project has been very gratifying. The average number of services is considerably larger than that of the previous year and a number of additional animals have been assigned to the work. Better methods of organization have been instituted and more attention has been paid to the instruction of the people in the care and handling of their brood stock. As a consequence, better results are being obtained from the number of services rendered. Bureau sires have been assigned to 10 additional districts.

At the close of the year 1913 a total of 21 sires of various classes were assigned to this project and at the close of the present year a total of 54 sires were assigned to the work. The greater part of these animals are being maintained by the provinces and municipalities, the bureau paying the salary of the superintendent or inspector in charge of the work.

VETERINARY DIVISION.

RINDERPEST.

On January 1, 1914, this disease was prevalent in 16 municipalities located in 8 provinces, namely, Batangas, Cagayan, Ilocos Norte, Laguna, Mountain, Pampanga, Pangasinan, and Tarlac.

Act No. 2303 of the Philippine Legislature, providing that the provincial governors should have the direction of, and be responsible for, the enforcement of the measures prescribed by the director of agriculture relative to quarantine and disinfection, has led to considerable change in the work of the veterinary division. On February 20 simple regulations for the handling of dangerous and communicable animal diseases in accordance with the new law were issued in English and Spanish. Several provinces were induced to employ experienced live-stock inspectors recommended by the bureau. The executive secretary has been indefatigable in his efforts to induce provincial and municipal officials to maintain effective measures.

At the end of the year 6 provinces with 17 municipalities were known to be infected. This was a gain of 2 provinces, but a loss of 1 municipality.

The largest number of provinces reported as infected at any one time during the year was 12 on September 28; the smallest, 4 on January 19. The largest number of municipalities was 50 on July 13 and the smallest 9 on January 19. The number of the new cases ranged from 195, during the week ending July 4, to 14 for the week ending December 12. Deaths varied from 152, for the week ending August 29, to 9 for the week ending October 17.

During the year 3,940 cases of rinderpest with 2,715 deaths were reported. This is a decrease of 1,032 cases and of 271 deaths from those of the preceding calendar year.

IMMUNIZATION AGAINST RINDERPEST BY SIMULTANEOUS INOCULATION.

Experience has demonstrated that, when rinderpest has already spread universally in a country destitute of fenced inclosures and in which herd mingles with herd in the most perfect freedom, its eradication by the ordinary quarantine and sanitary measures is practically impossible. As long as these conditions prevail, it is feasible to adopt those measures that help lower the virulence and mortality of the disease and assist nature in producing a race of animals highly resistant to the disease. These results are best obtained by the immunization of cattle and carabaos by simultaneous inoculation. During the past year this work has been extended in so far as was consistent with the limited funds available.

Importation of carabaos and cattle for work and breeding purposes from French Indo-China was resumed in the month of May. All animals were received at the immunizing station in Iloilo and were immunized by simultaneous inoculation. This method has satisfied both the importers and hacenderos and no disease has been introduced.

Owing to the threatened shortage of meat due to the embargo on the exportation of foodstuffs from Australia, General Order

No. 34 was issued on September 19, 1914, permitting cattle embarked at the ports of French Indo-China to be discharged and landed for slaughter only at the Pandacan Quarantine Station in Manila. Since that time, 2,199 such cattle have been landed, of which 1,473 were passed for food and 5 condemned amongst those slaughtered up to December 31. This measure has effectively prevented any shortage in the meat supply and has caused a marked reduction in the wholesale prices of beef. During the year a total of 2,208 cattle and 26 carabaos have been received at this station.

DIVISION OF AGRONOMY.

RICE.

Investigational work has been carried on with both lowland and upland varieties. Two experiments were conducted with the object in view of obtaining extra early maturing varieties having at the same time satisfactory productive power. No variety is retained which does not produce an average crop of 2,000 kilograms, or more, of rough rice per hectare. Experiments have also been conducted to more definitely ascertain the effects of the rate of seeding seed bed upon the vitality of seedlings; the effect upon yield and maturing period when seedlings of varying ages are used; the actual effect and value of transplanting seedlings compared with the broadcasting method; and comparative tests of propagation methods.

In advance of the regular rice-planting season arrangements were made to supply approximately 1,200 rice farmers with one-ganta samples of selected and improved seed rice. The results obtained in this work were most encouraging. Many cooperators secured splendid yields on the plots planted with bureau seed, who failed to harvest any crop whatever from the areas planted with their own seed. Forty to eighty cavan yields have been common from the areas planted with the bureau seed, where very poor crops have resulted when ordinary seed was planted. The interest in seed quality is growing substantially as a consequence of this work, and the bureau has already acquired, and placed in storage, more than 1,000 cavans of superior seed in addition to the amount of seed produced on its own lands. This seed will be distributed during the next planting season.

The most valuable features of the rice work this season have been the distribution of selected seed under proper supervision; the production and selection of improved seed for distribution; and the seed selection educational campaign by the distribution of rice posters.

SUGAR.

The sugar specialist of the bureau has devoted much time to visiting sugar producers in Oriental and Occidental Negros, Cebu, Panay, Tarlac, Batangas, Laguna, Rizal, Bulacan, and Pampanga, giving personal instruction in sugarhouse work, the use of improved cane varieties, preparation of land, planting, cultivating, irrigation, and harvesting. As the milling season approached illustrated lectures were given in Tarlac, Pampanga, Rizal, Laguna, and Batangas provinces.

GRASSES AND FORAGE CROPS.

There is no change to be recorded in the hay problem, but more interest is being shown in the fodder problem, especially among the more progressive owners and managers of plantations.

DIVISION OF HORTICULTURE.

This division has supervision of all seed and plant introduction and distribution work, of the Lamao and Singalong horticultural stations, and of the locust campaign.

Seeds and plants have been distributed in larger quantities than during any previous year. Seed requests to the number of 500 a day are handled during the planting season. Special attention is now being given to the production and distribution of selected seed of the staple crops of the islands.

At the Lamao Experiment Station various lines of experimental work with tropical fruits and vegetables have been carried on. This station furnishes the greater part of the plant material used for distribution.

The islands have suffered during the year from an extremely serious and widespread infestation of locusts. Swarms of locusts have been present in every province in the Island of Luzon, as well as in many of the other islands of the Archipelago. As a result of the active locust campaign carried on under the direction and supervision of the bureau the losses occasioned by this pest have, in most localities, not been serious, and the area of infestation has been largely reduced.

FIBER DIVISION.

During the six months from July to December of this year 29 employees were added to the force of this division in order to prepare for the enforcement of Act No. 2380 of the Philippine Legislature, entitled "An act providing for the inspection, grading, and baling of abacá (Manila hemp), maguey (cantala), sisal, and other fibers."

The work of the fiber division during the period covered by this report included preparation for the enforcement of the fiber grading and inspection law (Act No. 2380); investigations pertaining to abacá (Manila hemp), agave and allied fibers, kapok and allied flosses, cotton, and miscellaneous tropical fibers; and distribution of fiber plants.

The fiber-inspection law provides for a standardization of the commercial grades of the principal Philippine fibers, for a system of Government inspection of fiber graded and baled by private establishments, and for the institution of educational campaigns among the producers. The enforcement of the fiber inspection was assigned to the fiber division of the bureau of agriculture.

As this law did not become effective until January 1, 1915, the work during the year was of a preparatory nature. This preparatory work was commenced soon after the law was passed, when the chief of the fiber division was detailed to visit the United States and

Great Britain for the purpose of holding conferences with the principal buyers and manufacturers of Philippine fiber. It was desired to ascertain the requirements of the consuming markets, and to learn along what lines an improvement in the old methods of grading and baling fiber for export should be instituted. This visit clearly demonstrated that the great majority of the manufacturers regarded the law favorably, as was shown by their promises of support and cooperation.

Immediately following the return of the chief of the fiber division, bureau of agriculture General Order No. 33 was published in accordance with section 2 (c) and (b) of the fiber-inspection law. This general order prescribes regulations covering the following subjects: Designation of the official standard grades for each fiber covered by the law, determination of the standard grades and types thereof, and additional regulations regarding baling and labeling.

Samples of the standard grades established by General Order No. 33 were prepared and distributed among grading establishments, manufacturers, and other interested organizations and individuals. The next step taken was the training of an adequate force of fiber inspectors and assistants, which was one of the most important activities of this division. It is gratifying to state that the fiber inspectors are now qualified to begin their inspection work in an efficient and thorough manner. The work of the eight assistant inspectors who were detailed on educational duty among the producers in the principal fiber-producing provinces has already shown encouraging results.

DEMONSTRATION AND EXTENSION DIVISION.

The purpose of the demonstration and extension work is to provide a suitable means for showing the farmers of the islands in an effective and practical manner the value of improved agricultural methods. At the close of the year 22 American and 50 Filipino employees were engaged in this work, and cooperative field demonstrations were being carried on in 23 different provinces.

As a result of the work of the demonstration and extension division thousands of families in the provinces are being directly benefited, and the farmers in the districts where this work is carried on are learning that improved methods will bring improved results.

DIVISION OF PUBLICATIONS.

The work of the division of publications is carried on under the following heads: Publication and distribution of the Philippine Agricultural Review; publication of bulletins, circulars, and pamphlets; supervision of the bureau of agriculture library; miscellaneous printing on the planotype and roneo, and miscellaneous translations.

During the period from January 1 to December 31, 1914, an average of 1,936 English and 1,376 Spanish copies per month of the Philippine Agricultural Review were distributed. There were 232 paid subscribers to the English and 143 to the Spanish edition. As

exchanges for the foreign and local periodicals 186 English and 70 Spanish copies were sent out each month. There were 1,518 English copies and 1,154 Spanish copies of each edition distributed to school libraries, government officials, and other persons. Two special numbers were issued during the year entitled "Cacao" and "The Philippine Exposition."

Ending with the September, 1914, issue, the Spanish edition of the Review was discontinued, and the issues of the English edition for October, November, and December were combined in one number. During the year 1915 the Review will appear as a quarterly instead of a monthly, and in English alone, and will serve as a record of the technical and scientific work of the bureau. To meet the needs of the farmers of the Archipelago a monthly paper, called The Philippine Farmer, will be issued in both English and Spanish, and will contain only such material as will be of actual benefit and interest to the agriculturists of these islands. It is believed that by the division of the material formerly contained in the Review into two publications much better results can be obtained both with the farmers of the islands and our readers abroad.

The following bulletins and circulars have been issued during the period from January 1 to December 31, 1914:

Subject.	Author.	Copies.	
		English.	Spanish.
BULLETINS.			
No. 29, Duration of the Infectiveness of Virulent Rinderpest Blood in the Water Leech, <i>Hirudo Boyntoni</i> Wharton.	W. H. Boynton.....	1,000	.....
No. 30, Experiments upon the Transmission of Rinderpest.	A. R. Ward, F. W. Wood, and W. H. Boynton.	1,000	.....
No. 31, An Atypical Case of Rinderpest in a Carabao.....	W. H. Boynton.....	1,000	.....
CIRCULARS.			
No. 26, Cacao Culture.....	P. J. Wester.....	2,000	2,000
No. 27, Banana Culture.....	O. W. Barrett.....	2,000	3,000
No. 28, Propagation of the Seedless Breadfruit.....	P. J. Wester.....	2,000	3,000
No. 29, Guinea Grass.....	H. O. Jacobson.....	2,000	3,000
No. 31, Sugar-Cane Distribution.....	C. W. Hines.....	1,000	1,000
No. 32, Sugar-Cane Cultivation.....	.....do.....	2,000	2,000

BUREAU OF SUPPLY.

The following table shows the total volume of sales for each year since the establishment of the bureau:

Fiscal year—

1902.....	₱1, 970, 549. 78
1903 (59.05 per cent increase).....	3, 134, 141. 98
1904 (69.41 per cent increase).....	5, 309, 474. 37
1905 (7.01 per cent decrease).....	4, 936, 976. 79
1906 (26.97 per cent decrease).....	3, 605, 250. 07
1907 (8.146 per cent decrease).....	3, 311, 572. 52
1908 (29.12 per cent increase).....	4, 275, 990. 23
1909 (40.38 per cent increase).....	6, 002, 615. 14
1910 (1.43 per cent decrease).....	5, 916, 705. 02
1911 (18.546 per cent increase).....	7, 014, 021. 55

Fiscal year—Continued.

1912 (7.19 per cent increase)-----	₱7,518,357.20
1913 (6.88 per cent decrease)-----	7,001,095.83
Six months ended Dec. 31, 1913 (9.27 per cent decrease)-----	3,176,030.60
Fiscal year 1914 (14.55 per cent decrease)-----	5,962,276.30

Total----- 69,135,057.38

The total purchases during the year 1914 (exclusive of direct order and payment system purchases) amounted in value to ₱5,247,001.51, made up as follows:

Local purchases (61.38 per cent)-----	₱3,220,743.93
Importations from the United States (28.44 per cent)-----	1,492,120.10
Foreign importations (10.18 per cent)-----	534,137.48

Total----- 5,247,001.51

Direct order and payment system purchases (approximately)-----	₱1,000,000.00	1,000,000.00
Local purchases-----	3,220,743.93	

Total local purchases----- 4,220,743.93

Total, all purchases made by or through the bureau----- 6,247,001.51

Total local purchases (67.55 per cent)-----	4,220,743.93
Importations from the United States (23.89 per cent)-----	1,492,120.10
Foreign importations (8.56 per cent)-----	534,137.48

Total----- 6,247,001.51

The amount of total purchases (₱5,247,001.51) is considerably lower than the amount of sales (₱5,962,276.30) whereas in a number of former years the purchases were in excess of the sales. This is the result of conservative buying with a view to reducing stocks as much as possible consistent with economical operation.

Local purchases made by the bureau amounted to 61.38 per cent of the total purchases which included a large purchase of rice from Saigon. The income from the direct order and payment system purchases, on which the bureau gets a surcharge of 2 per cent, was approximately ₱20,000, indicating that the purchases were ₱1,000,000, and this, added to the purchases by this bureau, makes ₱4,220,743.93 and shows that 67.55 per cent of the total purchases of the bureau and provinces was made from local merchants. This does not include purchases made by provinces within their borders, which would undoubtedly raise the local purchases to over 80 per cent of the total purchases. Municipalities are not required to purchase through this bureau and do purchase very little in this manner. Including the purchases made by municipalities, the total local purchases of the government will exceed 90 per cent of all supplies used. Examination of a number of vouchers from various towns in various provinces indicates that the prices paid are much higher than those charged by the bureau, including the authorized surcharge.

Sales stock was decreased during the year from ₱2,208,378.32 to ₱1,982,819.90. As rice to the value of ₱100,542.52, which was sold in December but not completely delivered until January, was included in these figures, the actual stock value was ₱1,882,277.38, or a decrease of ₱326,100.94.

Attention is invited to the following table showing totals of all purchases by years since the establishment of the bureau:

Year.	Foreign impor- tations.	Per cent.	United States importations.	Per cent.	Local pur- chases.	Per cent.	Total.
1902.....			₱440,285.38	20.79	₱1,677,800.73	79.21	₱2,118,086.11
1903 (53.356 per cent increase)...			743,459.80	22.16	2,610,650.98	77.84	3,354,110.78
1904 (59.30 per cent increase)...			1,832,760.56	34.30	3,510,660.04	65.70	5,343,420.60
1905 (20.176 per cent decrease)...			1,129,516.84	26.48	3,135,808.86	73.52	4,265,325.70
1906 (19.19 per cent decrease)...			1,090,740.24	31.65	2,356,055.71	68.35	3,446,795.95
1907 (19.416 per cent decrease)...			596,643.03	21.48	2,180,923.68	78.52	2,777,566.71
1908 (33.866 per cent increase)...			993,588.36	26.72	2,724,652.34	73.28	3,718,240.70
1909 (50.427 per cent increase)...			1,783,771.56	31.89	3,809,478.31	68.11	5,593,249.87
1910 (4.847 per cent decrease)...	₱161,752.71	3.04	1,842,909.43	34.63	3,317,481.80	62.33	5,322,143.94
1911 (15.36 per cent increase)...	200,755.86	3.27	2,126,406.11	34.63	3,812,545.44	62.10	6,139,707.41
1912 (25.42 per cent increase)...	142,771.30	1.86	2,838,718.64	36.86	4,718,927.37	61.28	7,700,417.31
1913 (5.856 per cent decrease)...	228,379.88	3.15	1,373,499.43	18.95	5,647,621.87	77.90	7,249,501.18
6 months ending Dec. 31, 1913 (20.36 per cent decrease).....	77,938.65	2.70	804,747.95	27.87	2,003,995.60	69.43	2,886,682.20
1914 (15.95 per cent decrease).....	184,476.26	1.60	1,492,120.10	28.44	3,220,743.93	61.38	5,247,001.51
	2449,661.22	8.58					
Total.....	1,345,735.88	.....	19,089,167.43	.....	44,727,346.66	.....	65,162,249.97

¹ This figure represents purchases of general merchandise.

² This figure represents purchases of rice, which is outside the regular business of the bureau.

The gross income from surcharges, etc., during the year 1914 amounted to ₱335,996.74, and the actual cost of operation (including a deterioration of stock charge of ₱21,199.59) was ₱359,071.98, leaving a net loss of ₱23,075.24. This is partially offset by prior year credits of ₱5,150.83, making the actual net loss December 31, 1914, ₱17,924.41.

Early in the year 1914 the surcharge was reduced to 5 per cent. The lowest per cent of cost of operation for any year was 6.3 per cent, and that when the sales of the bureau were over ₱7,000,000. In 1914 the cost of operation decreased 28.15 per cent, the sales decreased 14.55 per cent, and the percentage of cost of operation dropped to 6.47 per cent of the cost of goods sold.

The following civil service changes were made during the past year:

	American.	Filipinos.
Appointments.....	11	20
Separations.....	8	23
Promotions.....	7	28
Reductions.....	1	4
Changes in temporary and emergency employees:		
Appointments.....	5	7
Promotions.....	0	4
Separations.....	9	15

¹ By transfer.

DIVISION OF COLD STORAGE.

The business of this division for the year shows a decrease, the gross earnings for the entire year being ₱508,007.39, as compared with ₱614,973.78 for the year 1913.

The 1914 earnings, itemized, were as follows:

Cold storage.....	₱197,585.32
Sales of ice.....	252,745.39
Sales of water.....	34,954.92
Electric current.....	16,723.69
Rental of launches.....	1,268.75
Transportation.....	15.00
Miscellaneous.....	4,714.32
Total.....	508,007.39

The decrease of approximately ₱100,000 in the year's earnings of the division is attributable to the organization and development of companies dealing in ice and distilled and artesian water. Cold-storage earnings were affected slightly, while ice and water sales show the bulk of the decrease. This was due not so much to the decreased volume of sales as to the fact that it was found desirable to lower the rates for ice and water.

The cost of operation during the year was ₱313,066.40, to which the following charges were added:

Repairs to buildings.....	₱182,241.35
Depreciation on equipment sold.....	12,973.78
Total.....	195,215.13

Which shows a loss of ₱274.14 on the current year's operations.

BUREAU OF PRISONS.

PERSONNEL.

During the period covered by this report two changes occurred among the prison officers, namely, the appointment of Dr. Charles G. Thompson as assistant director vice Mr. L. A. Dorrington, resigned, and the appointment of Mr. Mario Guariña, of Sorsogon, vice Mr. J. W. Quillen, transferred to the Iwahig Penal Colony. These changes were made effective July 1, 1914.

THE PRISON POPULATION AND THE STATUS OF CRIME.

On December 31, 1914, the prison population of the Philippine Islands was distributed as follows:

Billibid Prison.....	2,609
Iwahig Penal Colony.....	1,240
Working at Corregidor.....	1,105
Constabulary stations.....	30
San Ramon Penal Farm.....	28
Insular prisoners working at provincial jails.....	1
San Lazaro Insane Asylum.....	43
Hospicio de San José.....	12
Lolomboy Institute.....	27
Luneta police station.....	23
Confined in provincial prisons.....	1,645
Total.....	6,763

This represents a decrease of 428, or about 6 per cent, in the number of prisoners confined, taking the prison population on December 31, 1913, as a basis. The number of insular prisoners on December 31, 1912, was 5,173, and on December 31, 1914, 5,118. These prisoners are insular only in the sense that they are Bilibid prisoners, under the immediate control of the insular bureau headquarters, and either confined in Bilibid Prison or detailed from there for work in other places. The average number of insular prisoners confined during the year was 5,158.54, while the average number confined during the period covered by the previous report was 5,322.84. The number of provincial prisoners on December 31, 1913, was 2,018, and on December 31, 1914, 1,645, a decrease of 373.

Contrary to the consensus of public opinion, aroused probably by the energy displayed on the part of house thieves and pickpockets during the past few months in the city of Manila, there has been a slight reduction in the total number of convictions for crime in the last year. This is probably due not to less effort on the part of the police or any greater ability on the part of offenders to evade the authorities, but to an actual decrease in crime.

The following comparative table, showing the number of convictions for the more serious and some of the most frequent offenses committed during the last two years, gives some indication of the status of crime in general:

	1913	1914		1913	1914
Abduction.....	40	35	Infraction ordinance 135.....	158	91
Adultery.....	78	49	Infraction ordinance 152.....	36	76
Arson.....	18	5	Insurrection.....	0	1
Attempted rape.....	26	28	Murder.....	102	95
Brigandage.....	8	1	Parricide.....	24	26
Concubinage.....	6	11	Perjury.....	12	9
Embezzlement.....	172	186	Rape.....	26	23
Embezzlement with falsification.....	4	15	Robbery (various forms).....	264	225
Homicide.....	116	126	Seduction.....	6	7
Illegal marriage.....	32	24	Theft.....	468	504
Infraction city ordinances.....	836	981	Violation of cedula law.....	264	214

The figures given for 1913 are based upon the number of commitments during the last six months of that year.

BILIBID PRISON.

NUMBER OF PRISONERS.

The number of prisoners in Bilibid Prison on December 31, 1913, was 2,710, and on December 31, 1914, 2,609, a decrease of 101. The number of commitments by the court was 3,890, as against 4,259 for the preceding 12 months.

MAINTENANCE.

The per capita cost of maintenance has been materially reduced, incidental to the reduced cost of subsistence brought about by a change in the ration table. The change consisted in the adoption of more native vegetables than heretofore used in lieu of potatoes and

onions and other imported products, resulting in a diet more satisfactory to the prisoners and costing approximately 1 centavo less.

As last year, religious services have been conducted each Sunday by two regularly employed catholic chaplains and by volunteer protestant ministers representing the various denominations at least once each week. Beginning January 1, 1915, one regular catholic chaplain will be employed at ₱1,800 per annum in lieu of the two now employed at ₱1,200 per annum each. This change is being made in order that better service may be rendered the prisoners by requiring the presence of the one chaplain during the regular office hours every day instead of the weekly visits made by the two, as at present.

INDUSTRIAL DIVISION.

There has been a slight reduction in the amount of business done the past year as compared with 1913. The European war lessened business activities generally in the Philippine Islands and caused a tightening of money, and the introduction of cholera into the prison during the latter half of the year made it necessary to close down some of the shops and maintain a strict quarantine for a considerable time. The total output of the division amounted to ₱314,400.61, and the net earnings were ₱31,535.33.

SCHOOL.

The primary educational work among the prisoners has been considerably facilitated by the completion during the year of a new school building and the furnishing of more school supplies. There was also inaugurated a school for the women prisoners under the direct supervision of a woman teacher detailed from the bureau of education.

On December 31, 1914, there were 1,240 prisoners enrolled in the school, divided as follows:

Grade I, chart and first-year book.....	840
Grade II, first reader.....	246
Grade III, second reader.....	108
Grade IV, third reader.....	46
	<hr/>
	1,240

In addition to the starting of a school for women there has been established a night school in mechanical drawing. For the present the activities of this school are limited to instruction similar to that given in the public schools, and the enrollment is confined to prisoners who work in the shops and who desire to improve their knowledge of furniture building and mechanical construction in general.

IMPROVEMENTS AND REPAIRS.

Aside from the routine repair and construction work, three new brigades and a school building were completed during the year and concrete floors were substituted for the old floors in the general offices.

HEALTH AND SANITATION.

The health of the prisoners has been good, the chief cause of death, as in previous years, being pulmonary tuberculosis. Asiatic cholera was introduced in the prison during the last quarter, and on December 31 there had been 189 carriers, 52 cases, and 6 deaths reported. Of contagious and infectious diseases other than cholera, considering the population, the record has been exceptionally good, there being in all but 69 cases recorded. Only one case of beriberi developed in the prison during this period.

PROVINCIAL PRISONS.

Great strides have been made by the provincial officials in bringing about a general improvement in the administrative management of provincial jails during the past year. Discipline is noticeably better and the standard of efficiency among all provincial prison officers and employees materially increased. The constabulary, as heretofore, have rendered valuable assistance by their monthly inspections, and where the warden was found wanting in knowledge of prison work he has been sent to Bilibid for a course of instruction.

THE IWAHIG PENAL COLONY.

The number of prisoners in attendance exceeded that of any previous year, the daily average for the different classes in the colony being as follows:

Free colonists.....	53
Prisoner colonists.....	1, 243
Number of colonists' families.....	52
Total.....	1, 348

The increase in the total value of products raised on the colony was ₱8,375.87, which resulted in a reduction of ₱0.04582 in the average daily cost of the imported materials used for the ration. Rice, corn, vegetables, and meat constituted the chief products.

Health conditions were generally good, and the new hospital building provides proper accommodations for all patients. The conduct of the colonists was good, although the number of escapes was abnormally large. The reduction in the number of troops stationed near by and the release of a large number of trustworthy petty officers and capataces, together with the arrival of an exceptionally large number of new colonists, did much to increase the number of escapes.

Constructions and improvements effected during the year were a hospital, five dormitories, poultry house, tank tower, kitchen and bakery, four docks at outstations, three kilometers of first-class road, five kilometers of fence, many bridges and culverts. In addition, repairs were made on buildings, roads, launches, machinery, telephone lines, and trails. The sawmill produced 120,000 board feet of lumber, some of which was used in the building of two boats in which to transport supplies to the outstations.

BUREAU OF PRINTING.

In the bureau of printing the vocational training feature was continued during the year. Two hundred and four apprentices and junior craftsmen were advanced, 10 less than last year—1913. At the end of the year the number of apprentices and junior craftsmen employed was 138—28 less than at the close of the previous year.

A considerable saving was effected by reducing the number of both American and Filipino employees of the bureau. An annual salary reduction of ₱31,600 resulted from decreasing the number of Americans employed by 7, leaving a total American force of 23. An annual salary reduction of ₱28,400 was made by decreasing the number of Filipinos employed by 103. Except in a very few cases, the separations from the service have resulted from voluntary resignations or deaths. In no case was the regular work of the bureau interfered with.

An earnest effort has been made to induce Filipinos to qualify for the more responsible positions by making them assistants to the foremen of the divisions, one permanent assignment of this nature having been made in the bindery division during the year. Filipino employees are now executing all the work of the accounting division under the supervision of an American accountant. In the office of the receiver of work a Filipino employee has been assigned to the important work of revision under the supervision of a craftsman instructor.

During the year the bureau turned out work to the amount of ₱814,008.14, which was ₱91,994.64 less than the output for the preceding year. However, the difference between the cost of operation (₱697,175.96) and the output was ₱116,832.18, or ₱33,933.71 more than for the preceding year. The amount of printing done for the insular government was ₱544,693.64; for the provinces and the city of Baguio, ₱216,088.90; for the city of Manila, ₱24,171.22; and for the Federal Government and outside parties, ₱12,300.53. The total cost of the printing paper consumed was ₱164,889.36, which sum represented an increase in the cost of book paper and cardboard and bristol board, but decreases in writing paper, bond and ledger paper, and envelopes. The number of reams of paper used was 329 greater than during the previous year, and the number of packages delivered was 2,260 more, although their weight was 75,190 pounds less than that of the 1913 output.

The reimbursable appropriation with which the bureau has been operated for several years reverted to the general unappropriated surplus of January 1, 1914, and an appropriation of ₱666,553.53 was made in lieu thereof. Of this sum ₱556,053.88 was expended, leaving a balance of ₱100,499.65. Outstanding liabilities at the end of the year amounted to ₱150,869.68, of which ₱92,390.36 was contingent, and ₱58,479.32 accounts payable.

The value of public documents and publications sold was ₱41,986.63. There was a debit balance of ₱5,516.59 for the Official Gazette (English) and a credit balance of ₱6,219.93 for the Geceta Oficial (Spanish). The number of paying subscribers to both editions at the end of the year was 1,507; of those receiving free copies,

915. Issues of blank forms from stock amounted to ₱182,759.57, and receipts into stock, ₱193,187.15.

The power plant was made to render service throughout the year by reason of careful supervision. One part of this plant has been in use since 1902 and the other since 1904, and its replacement can be delayed only a little longer. It is planned to install a new oil internal-combustion engine plant during the year 1915. Coal gas was installed in the bureau during the year for use in place of carbide and gasoline.

As a summary of the work of the bureau of printing for 1914, the following points are mentioned: The output decreased by approximately 11.54 per cent; the decrease in the number of Filipino employees was about 12.24 per cent, and in the number of American employees about 14.81 per cent; the program of training Filipinos and preparing them for responsible positions was continued. On the whole, the work of the bureau was carried on with increased efficiency.

THE UNIVERSITY OF THE PHILIPPINES.

PERSONNEL.

The following members constituted the board of regents throughout the year: Vice Gov. Henderson S. Martin, chairman; President Murray Bartlett, Secretary Winfred T. Denison, Commissioner Rafael Palma, Right Rev. Jeremias J. Harty, Justice Finley E. Johnson, Frank L. Crone, Ignacio Villamor, Rafael Corpus, José Escaler.

James F. Kemp was appointed secretary of the board of regents and of the university early in 1914, the office of registrar being abolished and the duties of that position transferred to the office of the secretary.

During 1914 two deans, one professor, five associate professors, eight assistant professors, five instructors, one lecturer, one demonstrator, two assistants, and two other employees resigned or withdrew. Their places were, as a rule, filled either by appointment or by promotion.

ATTENDANCE AND GRADUATES.

The attendance for the year increased 38 per cent, as shown by the following comparative table:

	1913-14	1914
College of Liberal Arts.....	368	537
Registered in other colleges.....	51	146
	317	391
College of Medicine and Surgery.....	104	189
College of Agriculture.....	294	375
College of Veterinary Science.....	31	28
College of Engineering.....	12	40
College of Law.....	150	152
Registered in other colleges.....	7	11
	143	141
Total registration in colleges.....	901	1,164
School of Fine Arts.....	602	911
Total.....	1,503	2,075

The comparatively small registration in the College of Veterinary Science and the College of Engineering indicates that these fields, which present opportunities for great usefulness, are not as yet adequately appreciated. The 1914 graduating class was nearly twice as large as that for 1913, 97 degrees being conferred.

FINANCIAL STATEMENT.

The balance brought forward from 1913 was ₱420,784.14, Act No. 2319 appropriated ₱300,000; fees amounted to ₱15,718.72; and miscellaneous receipts totaled ₱9,993.82. Of this income of ₱746,496.68, expenditures were made amounting to ₱618,734.12, the chief items being as follows: Salaries, ₱432,557.86; wages, ₱48,762.36; supplies, ₱39,244.81; building and improvements, ₱30,839.97. On December 31, 1914, there was a balance of ₱127,762.56.

COLLEGE OF LIBERAL ARTS.

A student council was organized in 1914, which produced excellent results in matters pertaining to discipline. In all of the disciplinary cases referred to the council its advice was followed. The School of Education was inaugurated at the beginning of the academic year, and a large number of students registered in the three-year course. This school is under the direction of the dean, the director of education, and the chiefs of the departments in which the students have registered for their major studies. The first vacation session was held in 1914, with 120 students in attendance.

COLLEGE OF AGRICULTURE.

The land occupied by the college was increased to 127.2365 hectares by the purchase of 32.3822 hectares adjoining that already in use, and the facilities of the college were improved by the completion of a laboratory building constructed at a cost of approximately ₱30,000.

COLLEGE OF MEDICINE AND SURGERY.

Closer relations between the college and the Philippine General Hospital were effected by placing the hospital under the direction of the dean of the College of Medicine and Surgery, as chief of the Philippine General Hospital, division of the bureau of health. This step greatly improved the clinical facilities open to students. During the year the course in pharmacy was transferred from the College of Liberal Arts and became the School of Pharmacy, under the College of Medicine and Surgery. This arrangement gave students better opportunities for practical work, as the dispensary of the Philippine General Hospital was placed under the charge of the director of the School of Pharmacy. The requirements for matriculation in the College of Medicine and Surgery were raised at the beginning of the academic year to include one year's instruction of college grade, but such action did not result in reducing the number of students. Throughout the year the need of increased laboratory facilities was acutely felt.

COLLEGE OF LAW.

The efficiency of the school was increased by the appointment of a permanent dean, who gave all his attention to teaching and to the work in connection with his office. A further increase in efficiency was effected by the enlargement of the permanent faculty.

COLLEGE OF VETERINARY SCIENCE.

All the graduates of this college successfully passed the examination given by the board of veterinary examiners as required by law, which fact furnishes practical proof of the efficient training received. During the year a well-equipped operating room for large animals was installed and a suitable dispensary equipped, where practical instruction in writing prescriptions is given. From July 1, 1913, to July 1, 1914, 1,244 cases were treated in the veterinary clinic, which not only afforded valuable experience to the students but also rendered a great service to owners of animals.

COLLEGE OF ENGINEERING.

During the past year new and better quarters were assigned for offices, classrooms, and drafting rooms, and the arrangement made to give students in engineering practical training in the shops of the Philippine School of Arts and Trades proved very satisfactory. Eleven students attended the annual summer camp at Baguio, where opportunities for practical work in surveying are excellent. A change in the course of study, whereby students may receive the degree of bachelor of science in civil engineering in four years, proved very popular.

SCHOOL OF FINE ARTS.

The first diplomas issued by this school were granted in March, 1914, to four candidates in painting, one in sculpture, and one in engraving. Only those who showed marked ability in their chosen field of art received diplomas, and their work was highly commended by those who attended the closing exhibition.

PHYSICAL EDUCATION.

Matriculating students were given a rigid medical examination which showed that the physical condition of entering students was conspicuously better than in previous years, a result undoubtedly due to the emphasis placed upon physical education in the public schools. Careful supervision of the students' health and physical development was exercised throughout the year. The plan of requiring regular outdoor exercise was continued, schedules of group games were conducted, and the teams of the university were members of various leagues organized in Manila.

PRIVATE SCHOOLS.

Consistent progress has been made in the work of regulating and supervising private institutions of learning. During the year, one new school was organized for primary grades and two for both pri-

mary and intermediate grades. In addition, one of the schools already recognized for secondary grades was given approval for the college course. There are still a large number of schools seeking government recognition.

The total enrollment for 1914 in the organized schools and colleges was approximately 32,000. The enrollment in the better class of private schools showed an average increase of about 20 per cent over that for the preceding year. Several of these schools could not accommodate all the pupils who applied for admission, as a result of which many are planning to enlarge their teaching personnel in order to enable them to accommodate additional pupils during the coming school year.

The greatest progress in the establishment of new schools has been made in the department of Mindanao and Sulu, in Surigao, and in the Mountain Province. The enrollment in the private schools of Mindanao is now approximately 10,000, and in the Mountain Province it exceeds 2,000. These new schools, established for the most part in isolated places, are bringing educational opportunities within reach of children who have never had such opportunities and whom the public schools probably could not reach for some time to come.

The work of standardizing the courses of study for private schools and colleges has progressed and now in almost all of the larger private schools the course of instruction has been put on a 13-year basis. The standard 13-year course provides for 4 years of primary, 3 years of intermediate, 4 years of high school, and 2 years of college work. The subjects offered are similar to those given in the public schools, and a gain has been made in rendering the instructions more practical and up-to-date.

With very few exceptions, all of the recognized schools are using the textbooks prescribed by the bureau of education for the public schools. Most of the teaching is now done by trained teachers from Europe and America or by Filipinos who have had normal school or other special training. Much of the work in the high schools and colleges is given in English, and, with one or two exceptions, all the primary and intermediate instruction in the accredited schools is given in that language.

Industrial instruction is given less emphasis in the private schools than in those maintained by the government. This is due mainly to the fact that the private schools are forced to a considerable degree to cater to the demands of their patrons, and hence are influenced to devote the major part of their attention to classical subjects rather than to industrial education. They are dependent for support upon the people and until their patrons demand a greater amount of industrial instruction radical changes in the private schools in this regard can not be expected. However, there are several private schools that devote considerable time to industrial work of a high grade. All girls' schools teach sewing and embroidery, while some of them teach cooking, but many of the schools for boys give no industrial instruction. This latter condition is partly due to lack of supplies, equipment, and qualified teachers.

Considerable progress has been made in introducing athletics and games into private schools and colleges. Practically all devote some

attention to athletics and many schools now have athletic teams which engage in contests with other private or public schools.

For the first time in their history the private schools have united in preparing a representative exhibit. Their exhibit at the Panama-Pacific International Exposition at San Francisco represents a value of approximately ₱35,000 and contains some of the finest laces, embroideries, paintings, carvings, etchings, furniture, and specimens of academic work that can be found in the islands.

THE PHILIPPINE LIBRARY.

The year 1914 saw a substantial increase in the use of the library, which proves that the work of this institution is meeting a community demand. The two greatest departures from former years were the measures making the privileges of the circulating division free and public and the opening of the periodical division on Sundays and most holidays.

During the last five years the development of the Philippine Library has been steady. Through the generosity of the legislature the Filipiniana division has increased from a few cheap books to a collection of over 20,000, the best Filipiniana collection in existence. Maps and manuscripts have been collected, the library has been brought into connection with many other libraries and institutions throughout the world, and a monthly bulletin has been published. The social center idea and children's branch should be extended.

PERSONNEL.

Three new appointments were made under the classified service, increases in salary were authorized for 20 employees, temporary appointments were given to 17 employees, 10 voluntary resignations were received, and two forced separations were made.

FINANCIAL STATEMENT.

Appropriations and disbursements for the year were as follows:

Appropriations:	
Act No. 2319.....	₱70,747.86
Act No. 2223.....	100,000.00
Carried over by Act No. 2059.....	21,247.95
Receipts for fiscal year 1914.....	2,146.43
Total	<u>194,142.24</u>
Expenditures:	
Purchase of equipment.....	108,994.51
Capital value of fixed assets.....	542.42
Salaries and wages.....	44,890.48
Contingent expenses.....	23,813.75
Balance available.....	15,901.08
Total	<u>194,142.24</u>
Receipts from operation.....	1,604.01
Sales of fixed assets.....	542.42
Total receipts.....	<u>2,146.43</u>

REQUISITIONS FOR THE PURCHASE OF BOOKS.

During the year 154 requisitions were forwarded to the library board by the librarian, 2 of which, because of the abolition of the requisitioning bureau, were not approved, while 2 were carried over.

CATALOGUE CARD FILING.

About 50,000 cards were filed in all, and 500,000 proof slips still remain to be filed. This card filing will prove of great value for general bibliographical purposes and for book buying.

BIBLIOGRAPHICAL WORK.

Bibliographical information was furnished continually by the general office and every division of the library. Lists were prepared for the Bulletin of the Philippine Library and for the daily papers. Typewritten lists were sent to several bureaus, to various institutions, to hotels, and to papers. The Bulletin is of considerable use in the provinces for information of the new accessions in the library and as a printed catalogue of the books of the circulating division.

CATALOGUE DIVISION.

Besides the regular cataloguing, much was done in this division in reference work and in making biographies for clubs and individuals. The work done on the books for the Panama-Pacific International Exposition was also performed by this division.

CIRCULATING DIVISION (AMERICAN CIRCULATING LIBRARY).

The free privileges of the circulating division were extended first to the enlisted men of the American Army, Philippine Scouts, and the Philippine Constabulary and later on to the public in general. This advance, the greatest ever made by the division, made the library a "public" library in every sense of the word. New rules, in accordance with the best modern library practice of the United States, were adopted.

The result of making the library privileges free was seen immediately in the great increase in the total circulation for the year, which reached 77,551 on a capital of about 30,000 volumes. For the first time in the history of the library this division had (after July 1) enough demand to keep it occupied. The University of the Philippines, the Manila High School, and many other public schools made an increased use of the books of this division. The classes of books most called for were sociology, literature, history, and fiction. Figures show that the per cent of fiction read is decreasing.

FILIPINIANA DIVISION.

The use of this division by the public increased steadily, the report for the year showing 9,454 books called for. The most important work done was the research in newspapers, reviews, and other books

for bibliographical notices. Among the books purchased for this division were some of rarity and importance, and the same is true of some of the gifts. These books purchased included considerable material published in the United States during the early years of American occupancy of the Philippines. Over 1,100 books and photographs of the title-pages of 120 of the rarest books of the division were sent to the Panama-Pacific International Exposition. Four brass tablets commemorating important dates in Philippine history were purchased with a gift made by members of the Philippine Legislature.

PUBLIC DOCUMENT DIVISION.

This division was well prepared to meet calls made upon it because of the foundations established and the material improvements made in 1913. Many early documents published by the government of the Philippine Islands were obtained by the staff in charge of this division and the inventorying of the depository materials of the Government of the United States was continued. Requests for copies of regulations and laws concerning coconut plantations and the copra industry were sent to eastern tropical islands, and considerable material was received.

The greatest innovation during the year was the opening of the reading rooms on each Sunday and holiday from 2 to 9 p. m., with very little extra expense. After removal of the subscription fee in the circulating division the reading rooms were filled from opening to closing, and abuses of the library's hospitality were not many. This division furnished its readers a creditable list of periodicals, including the best from the United States, the Philippine Islands, Great Britain, France, Germany, Spain, Australia, China, and Japan. The library received several tons of periodical literature from the Military Aid Society.

MANUSCRIPTS AND MAPS.

Some additions were received from the provincial papers, and several very important additions to the library's manuscripts were received from Mr. José E. Marco.

During the year maps of the library were collected, labeled, and placed in order in cases. The library owns the rarest and most valuable maps of the Philippines ever published. There is no intention of going into the collection of maps except for districts of the Philippine Islands.

ACCESSIONS.

The following accessions were made during 1914:

How obtained.	Circulating division.	Philippine division.	Public documents division.	Periodical division.	Total.
By purchase.....	3,120	2,721	1	88	5,930
By gift and transfer.....	308	1,402	1,260	973	3,943
By exchange.....	5		222		227
By binding.....				246	246
All others.....	10	104			114
Total.....	3,443	4,227	1,483	1,307	10,460

THE PUBLIC WELFARE BOARD.

Upon the call of the secretary of public instruction a meeting was held June 7, 1914, for the purpose of organizing a public welfare board, the objects of which were to be the coordination of the efforts of government agencies and influences interested in public-welfare work without interfering with any existing government entities in the discharge of their official duties, and the coordination as far as possible of the activities of the public-welfare board with charitable and social service organizations, whether receiving government support or not, without encroaching in any way upon the independence of such organizations. By such working together it was aimed to secure in a high degree the wise expenditure of all government funds appropriated for charitable and public-welfare purposes. In carrying out the work of the public-welfare board committees were appointed on public morals, finance, defectives, delinquents and dependents, tuberculosis, infant mortality, free legal aid, and social centers.

The public-welfare board proposed that each organization be legally recognized and that the government funds appropriated for charity and public-welfare purposes be placed at the disposition of the board, which would allot these funds to the organizations best fitted to render effective service to society. The Legislature legalized the formation of the public-welfare board, but continued its old policy of appropriating funds directly to charitable and public-welfare organizations without providing for any intervention on the part of the public-welfare board.

The various committees continued their work throughout the remainder of the year and many helpful recommendations were made. The committee on social centers organized a number of social centers in connection with the public schools in Manila and the provinces. This work has been hampered by the lack of sufficient funds to carry on the work. The most important work undertaken by the public-welfare board was in connection with clean-up week, which took place during the week beginning December 14. The bureau of health issued a circular to all district health officers and medical inspectors, which gave specific instructions regarding the work to be undertaken, and the various bureaus of the government cooperated with provincial and municipal officials to carry the plans for clean-up week to a successful conclusion. Very excellent results were reported from every section of the islands. It would be safe to say that the Philippines never were so clean as at the end of clean-up week. Inspections of provinces showed that this movement had resulted in permanent improvement in sanitary conditions in the majority of the municipalities of the islands. Although the board will be unable to accomplish all its plans on account of having no funds at its disposition, it is believed that it will accomplish invaluable results by continuing to insist upon cooperation on the part of every organization, whether governmental or private, which is interested in the work of rendering a social service. Such cooperation will secure greater economy in the expenditure of funds and will promote greater efficiency in every direction.

As at present composed, the public-welfare board consists of the secretary of public instruction, chairman, the secretary of the in-

terior, the executive secretary, the director of health, the director of education, the director of prisons, the dean of the College of Medicine and Surgery of the University of the Philippines, the chairman of the committee on public health of the Philippine Assembly, and five additional members to be designated by the Governor General.

THE SALES AGENCY.

The work of the sales agency included the improvement of the methods of production employed in the household handicrafts and the disposal of the product. The first of these activities does not produce revenue, yet the expenditure of government funds was very small, for, of the two hundred agents employed in this work, only one received a salary. During the year gains in securing facilities in the United States for distributing the products of the Philippine household industries were made, but the receipts from sales did not render the agency self-supporting.

Embroidery received the most attention during the year, and the standardization of the product proceeded in a satisfactory manner. Emphasis was placed upon developing this industry in Manila and the adjacent provinces, in which district there are at present available 16,000 embroidery workers capable of turning out ₱960,000 worth of embroidery per year, provided a steady market can be assured.

The development in the manufacture of fiber hats, which are next to embroidery in importance, was satisfactory. Lace making also showed a considerable advance in commercial importance.

With an appropriated capital of ₱82,000, and the privileges attaching to a reimbursable fund, the sales agency expended ₱24,920.93 for salaries and wages, produced a trade income of ₱157,307.59, and produced merchandise worth ₱157,456.32. Agents working on a commission basis came in contact with approximately 25,000 handicraft workers, and sales of their products took place in more than one hundred of the smaller cities and towns of the United States.

Act No. 2438, passed December 29, 1914, extended the time for the abolition of the sales agency from January 1, 1915, the date fixed by Act No. 2324, to March 1, 1915.

Summary of statistics for the fifteenth annual report of the director of education.

[The figures for the school year 1914-15 are for the months June to December, 1914, inclusive.]

I. DIVISIONS, DISTRICTS, AND SCHOOLS.

	1913-14	1914-15
Number of divisions.....	37	37
Number of supervising districts.....	257	236
Primary schools.....	3,913	3,851
Intermediate schools.....	278	307
Secondary schools (including regular provincial high schools and special schools giving secondary subjects).....	44	41
Total number of schools.....	4,235	4,199

Summary of statistics for the fifteenth annual report of the director of education—Continued.

II. ENROLLMENT AND ATTENDANCE, 1913-14.

	Annual enrollment.	Average monthly enrollment.	Average daily attendance.
Primary.....	577,732	450,652	392,094
Intermediate.....	36,860	32,675	30,912
Secondary.....	6,438	5,743	5,546
Total.....	621,030	489,070	428,552

ENROLLMENT AND ATTENDANCE, JUNE-DECEMBER, 1914.

	Annual enrollment.	Average monthly enrollment.	Average daily attendance.
Primary.....	539,757	465,679	412,560
Intermediate.....	41,888	37,714	35,563
Secondary.....	7,565	6,842	6,557
Total.....	589,210	510,235	454,680

III. INTERMEDIATE SCHOOLS, BY COURSES.

	1913-14			1914-15		
	Grade V.	Grade VI.	Grade VII.	Grade V.	Grade VI.	Grade VII.
Number giving general course.....	207	158	128	234	171	141
Number giving teaching course.....	26	29	29	39	35	35
Number giving H. K. and H. A. course.....	68	67	58	70	70	64
Number giving trade course.....	39	35	35	36	35	30
Number giving farming course.....	14	12	11	11	11	10
Number giving business course.....	1	1	1	1	1	1

IV. TRADE SCHOOLS AND SHOPS.

	Number.	Output, 1914.
Trade schools.....	19	₹147,672.62
Provincial school shops.....	13	10,981.37
Municipal school shops.....	267	37,894.28
Total.....	299	196,548.27

V. NUMBER, ENROLLMENT, AND OUTPUT OF TRADE SCHOOLS, BY YEARS.

Year.	Schools.	Pupils.	Commercial work.
1907-1909.....	4	450	₹85,000.00
1910.....	6	849	59,792.00
1911.....	13	1,309	87,112.00
1912.....	16	1,211	128,118.00
1913.....	18	2,203	143,878.00
1914.....	19	2,304	147,672.62
Total.....			651,572.62

Summary of statistics for the fifteenth annual report of the director of education—Continued.

VI. SECONDARY SCHOOLS.

	1913-14	1914-15
Full secondary course	16	17
Three-year secondary course	19	23
Two-year secondary course	32	33
One-year secondary course	44	41

VII. CLASSIFICATION OF ALL EMPLOYEES.

	March, 1914.	Decem- ber, 1914.
Directors.....	3	3
Division superintendents.....	33	34
General office clerks (American).....	11	8
General office clerks (Filipino).....	108	100
General office messengers.....	18	15
Teachers, American.....	612	539
Teachers, Filipino insular.....	1,240	1,291
Teachers, municipal.....	7,578	8,014
Teachers, apprentice.....	32	96
Superintendent, school of household industries, special	1	1
Teachers, school of household industries	11	11
Clerk, school of household industries	1	1
Division superintendents' clerks.....	115	107
Laborers and janitors	139	74
Unclassified (including regular employees on leave).....	82	67
Total.....	9,984	10,361

VIII. DISTRIBUTION OF TEACHERS.

	March, 1914.	Decem- ber, 1914.
American:		
Primary	17	15
Intermediate.....	43	106
Secondary.....	156	173
Industrial instruction.....	70	53
Industrial supervision.....	48	54
General supervision.....	178	138
Total.....	612	539
Filipino insular:		
Primary	362	320
Intermediate.....	415	470
Secondary.....	11	15
Industrial instruction.....	286	273
Industrial supervision.....	40	52
General supervision.....	126	161
Total.....	1,240	1,291
Municipal:		
Primary	7,000	7,232
Intermediate.....	248	370
Secondary.....	1	1
Industrial instruction.....	323	397
Industrial supervision.....	1	7
General supervision.....	5	7
Total.....	7,578	8,014
Apprentice:		
Primary	32	93
Intermediate.....		1
Secondary.....		2
Industrial instruction.....		96
Industrial supervision.....	32	
General supervision.....		
Total.....	64	192
Total teaching force.....	9,462	9,940

Summary of statistics for the fifteenth annual report of the director of education—Continued.

IX. GRADUATES.

Year.	Primary.	Intermediate.	Secondary.
Before 1907-8.....	1 10,000	1 700	3
1907-8.....	4,954	1,051	11
1908-9.....	7,273	1,529	1 88
1909-10.....	9,992	2,108	122
1910-11.....	11,760	2,436	222
1911-12.....	11,200	3,062	221
1912-13.....	14,040	4,695	342
1913-14.....	15,976	4,585	407
Total.....	86,195	20,166	1,416

¹ About.

X. INSULAR SCHOOLS.

	1913-14		1914-15	
	Teachers.	Enrollment.	Teachers.	Enrollment.
Philippine Normal School.....	51	1,506	51	1,830
Philippine School of Arts and Trades ¹	31	726	30	798
Philippine School of Commerce.....	14	399	13	411
Philippine School for Deaf and Blind.....	5	54	5	53
School of Household Industries.....	10	132	11	160
Central Luzon Agricultural School.....	10	223	11	327
Bacolod Trade School ²	9	211	.....	.....
Total.....	130	3,251	121	8,579

¹ Including the Nautical School department.² Became a provincial school in April, 1914.

XI. CORN CAMPAIGN, 1913-14.

Number of entries in contest No. 1.....	19, 270
Number of entries in contest No. 2.....	24, 291

XII. SCHOOL AND HOME GARDENS.

School gardens:	
For the school year 1911-12 there were.....	2, 570
For the school year 1912-13 there were.....	2, 310
For the school year 1913-14 there were.....	3, 236
For June-December, 1914, there were about.....	3, 300
Home gardens:	
For the school year 1910-11 there were.....	10, 330
For the school year 1911-12 there were.....	22, 958
For the school year 1912-13 there were.....	35, 719
For the school year 1913-14 there were.....	41, 642
For June-December, 1914, there were about.....	44, 000

XIII. SERVICE OF AMERICAN TEACHERS.

Number arriving before Dec. 31, 1901, who are still in the service as teachers.....	74
Number arriving before Dec. 31, 1901, still in the service of the bureau of education other than as teachers.....	22
Number arriving in the islands for the school year 1912-13.....	133
Number arriving in the islands for the school year 1913-14.....	89
Number arriving in the islands for the school year 1914-15 up to Dec. 31, 1914.....	43

The average number of years of service in bureau of education on Oct 15, 1914, was 5 years 3 months and 27 days.

XIV. SALARIES OF FILIPINO TEACHERS.

Insular:

During the school year 1913-14 the salaries of insular teachers averaged.....	P50.77
On Jan. 1, 1915, the total average salary paid to the 536 regular Filipino insular teachers amounted to.....	65.52
On Jan. 1, 1915, the total average salary paid to the 644 temporary Filipino insular teachers averaged.....	47.89
On Jan. 1, 1915, the average salary paid to all Filipino insular teachers has been increased to.....	55.90

Municipal:

Salaries of municipal teachers for the school year 1913-14 averaged..	21.34
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XV. BUILDINGS.

Number of permanent high-school buildings.....	124
Number of permanent trade-school buildings.....	28
Number of other permanent provincial buildings, including dormitories, special industrial buildings, etc.....	14
Number of permanent municipal school buildings.....	682
Number of permanent concrete buildings completed between Jan. 1 and Dec. 31, 1914, as classified above.....	60
Number of permanent concrete municipal school buildings, standard plan....	275

XVI. SCHOOL SITES.

Number of standard school sites, barrio and central.....	1,338
Number acquired during the calendar year 1914.....	268
Number acquired since July 1, 1911.....	1,112

XVII. ATHLETIC ASSOCIATIONS.

The Cagayan Valley Association: Cagayan. Isabela.	The Bicol Interscholastic Athletic Association: Albay. Sorsogon. Camarines.
The Ilocano Interscholastic Athletic Association: Ilocos Norte. Ilocos Sur. Union.	The Eastern Visayan Interscholastic Athletic Association: Leyte. Cebu. Bohol. Samar. Surigao-Misamis. Oriental Negros.
The Agno Valley Athletic Association: Pangasinan. Tarlac.	Interscholastic Athletic Association of the Western Visayas: Antique. Capiz. Occidental Negros. Iloilo.
The Central Luzon Athletic Association: Pampanga-Bataan. Nueva Ecija. Bulacan.	Divisions not belonging to any athletic association: Agusan-Bukidnon. Mindoro. Mountain Province. Nueva Vizcaya. Palawan. Zambales.
The Manila Interscholastic Athletic Association: Philippine School of Arts and Trades. Philippine Normal School. City schools. Manila High School.	
The Southern Tagalog Athletic Association: Rizal. Laguna. Cavite. Tayabas. Batangas.	

¹ Of this total those at Iba, Tagbilaran, Tarlac, Pasig, and Albay are in very bad condition.

XVIII. GRADUATES OF INSULAR SCHOOLS WHO HAVE ENTERED WORK FOR WHICH THEY STUDIED.

	Per cent.
Philippine Normal School.....	80
Philippine School of Commerce.....	100
Philippine School of Arts and Trades.....	90

XIX. INDUSTRIAL WORK.

School years.	Number of articles exhibited.	Total value.
1910-11 ¹	9,761	P18,964.62
1911-12.....	16,362	34,418.68
1912-13.....	23,305	57,183.24
1913-14.....	51,048	98,976.01

¹ Not including number of articles nor value of exhibit of the Manila schools.

XX. SPECIAL SCHOOLS.

(a) Agricultural schools.....	14
(b) Farm schools.....	8
(c) Settlement farm schools.....	48
(d) Industrial schools (except insular schools).....	8
Total.....	68

Special schools are conducted in non-Christian provinces or in non-Christian districts of other provinces. They are four kinds, as shown in the above table.

Agricultural schools are located as follows: Muñoz, Nueva Ecija (the Central Luzon Agricultural Insular School); Mailag, Agusan; Bunauan, Agusan; Aborlan, Palawan.

Farm schools are located in Batac, Ilocos Norte; Indang, Cavite; Iba, Zambales; Tacloban, Leyte; Batangas, Batangas; Santa Maria, Ilocos Sur; Guinobatan, Albay; San Carlos, Pangasinan.

Settlement farm schools are located as follows: 21 in Bukidnon, Agusan; 19 in Butuan, Agusan; 1 in Zambales; 7 in Nueva Vizcaya.

Industrial schools are conducted in Bua, Bontoc, Kiangnan, Lubuagan, Lutab, Cabayan, and Bagulo, Mountain Province, and in Lagangilang, Ilocos Sur.

XXI. EXPENDITURES.

STATEMENT OF TOTAL EXPENDITURES FOR SCHOOL PURPOSES DURING 1914, INSULAR, PROVINCIAL, AND MUNICIPAL.

Insular:

Expenditure, salaries, wages, and contingent—

Act No. 2319, general appropriation.....	P4, 078, 033.50
Act No. 2368, nautical school.....	15, 000.00
Act No. 2398, non-Christian pensionados.....	2, 750.00
Act No. 2471, deficiency appropriation.....	76, 223.10
Balance from fiscal year 1914—	
Act No. 1984, teacher pensionados.....	26, 324.02
Act No. 2288, aid primary schools.....	23, 036.83
Total.....	4, 221, 367.45
Balance reverted to the insular treasury.....	141, 311.47
Net expenditures.....	4, 080, 055.98
Construction of schoolhouses, act No. 1688.....	162.49
Bagulo Teachers' Camp, act No. 1994.....	3, 315.63
Barrio schoolhouses, act No. 2029.....	216, 603.24

¹ Including the Central Luzon Agricultural School.

Insular—Continued.

Girls' dormitory, Manila, act No. 2059-----	₱179,540.14
Buildings, School of Arts and Trades, acts Nos. 2059 and 2264-----	1.43
Girls' Industrial School, Baguio, act No. 2070-----	17,942.24
School buildings, non-Christian, acts Nos. 2194 and 2283-----	13,400.00
School buildings, secretary of public instruction, acts Nos. 2264 and 2378-----	66,000.00
Buildings, Central Luzon Agricultural School, Nueva Ecija, act No. 2378-----	12,712.84
Total insular-----	4,589,733.99
Provincial expenditures for school purposes-----	249,351.85
Municipal expenditures for school purposes-----	2,455,660.18
Grand total-----	7,294,746.02
In addition to the above, from voluntary contributions approximately-----	100,000.00
Cost of education per capita of total population (census of 1903, modified by division estimates)-----	.98
Cost of education per pupil (based on average monthly enrollment)-----	14.49

DEPARTMENT OF MINDANAO AND SULU.

THE GOVERNMENT OF THE PHILIPPINE ISLANDS,
OFFICE OF THE GOVERNOR,
Zamboanga, P. I., February 10, 1915.

THE GOVERNOR GENERAL OF THE PHILIPPINE ISLANDS,
Manila, P. I.

SIR: I have the honor to submit the following report of affairs of the department of Mindanao and Sulu for the fiscal year ending December 31, 1914.

This is the first annual report submitted by the undersigned and it may not therefore be inappropriate to mention briefly here the more significant facts relative to American occupation of this portion of the Philippine Archipelago.

In May, 1899, the United States Army relieved the Spanish troops in Jolo, and in November of the same year Zamboanga was occupied. From that time until December 15, 1913, the Moro Province—the department of Mindanao and Sulu, less the provinces of Agusan and Bukidnon—was governed by officers of the Army. This government was purely military up to July 15, 1903, when the government of the Moro Province was established. Thereafter military control was continued by the appointment or detail of military officers to civil offices. Gens. Bates, Kobbe, and Davis, in that order, commanded the military forces of Mindanao and Sulu before the establishment of the Moro Province. After that date Gens. Wood, Bliss, Hoyt, and Pershing, in turn, commanded the military establishment and at the same time occupied the position of governor of the Moro Province. Many offices in the government of this province and its five districts, now provinces, were also filled by Army officers.

The problems faced by the American Army here were exceptionally difficult. Public order had to be established among a large Mohammedan and pagan population little accustomed to restraints of any kind. Municipal and district governments, public education, public health, and other fundamental activities of government had during the Spanish régime either been entirely lacking throughout immense areas or, if they existed, had become wholly disorganized, and it was necessary to create them anew. The framework of local government was soon established, public education and sanitation, the construction of roads, bridges, and wharves, and other governmental operations were carried as far as the meager financial resources would permit. At the same time the number of Army officers occupying civil positions was progressively reduced. When Gen. Pershing resigned his civil office on December 15, 1913, no district governorship or other office of importance in the provincial or district governments except that of the provincial health officer was held by an officer of the United States Army. Their work as administrators of civil affairs in Mindanao and Sulu, begun more than

15 years before, was completed. The talented officers who successively administered the Moro Province not only left behind them a record of admirable achievement—they disinterestedly and with definite purpose devoted all their efforts toward the preparation of this region for transfer to purely civilian control. The subsequent kindly attitude of the Army has been manifest constantly during the transition period, and the change has been effected without interrupting in the least degree the stability or continuity of governmental activities in public service.

1. AREA.

Excepting the narrow strips on the north and east coasts comprised within the provinces of Misamis and Surigao, the department of Mindanao and Sulu includes within its territorial limits the entire island of Mindanao and the islands to the south and southwest within the limits of the Philippine Archipelago, including the Sulu group and Cagayan Sulu. According to the most authoritative estimate, Mindanao-Sulu has a land area of 36,540 square miles, about one-third of that of the entire Philippine Islands. Excluding the single island of Luzon, the area of Mindanao-Sulu exceeds the combined areas of all the islands of the Philippine Archipelago not included within boundaries of the department.

Of the seven provinces of the department one alone, Cotabato, is greater in area than the provinces of Cebu, Ilocos Sur, Iloilo, Pangasinan, Bulacan, Pampanga, Cavite, Laguna, and Rizal combined. This one province is also greater in area than the State of Massachusetts or any one of six others of the United States, greater than Hawaii and Porto Rico combined, and equal to that of the Republic of Haiti.

The department exceeds in area the States of Connecticut, Delaware, New Hampshire, Rhode Island, and Vermont combined; the Kingdoms of Denmark and Holland together; Portugal or Greece.

2. POPULATION.

The following table shows the population, according to the census of 1903, of the territory now forming the department, the grand total being 458,120. The totals of each province are those determined, or at least adopted, by the insular auditor. The "civilized" population is compiled from that given under that heading in the census reports for the various municipalities or comandancias, while the "wild" population is the remaining population assigned to that province.

Population of department of Mindanao and Sulu, census of 1903.

Province.	"Civilized."	"Wild."	Total.
Agusan.....	1 19,056	9,137	28,193
Bukidnon.....		28,150	28,150
Cotabato.....	2,149	75,562	77,711
Dayao.....	20,224	45,272	65,496
Lanao.....	3,403	66,500	69,903
Sulu.....	1,660	88,929	90,589
Zamboanga.....	39,177	58,901	98,078
Total.....	85,669	372,451	458,120

¹ Given as "Christian" in 1913 report of insular auditor.

A conservative estimate of the present population is 626,086, distributed as follows:

Present estimated population.

Province.	Chris- tian. ¹	Moham- medan.	Pagan.	Total.
Agusan.....	23,000	.....	36,500	59,500
Bukidnon.....	10,000	600	50,000	60,600
Cotabato.....	5,766	81,600	7,140	94,506
Davao.....	29,964	7,500	59,413	96,877
Lanao.....	8,866	76,500	.....	85,366
Sulu.....	5,400	104,550	.....	109,950
Zamboanga.....	47,536	42,840	28,911	119,287
Total.....	130,532	313,590	181,964	626,086

¹ Includes Chinese, Japanese, and all other civilized persons not Mohammedan or Pagan.

NOTE.—The following is the number of Roman Catholics by provinces of the department, as reported by the Catholic Church authorities. These numbers doubtless include many newly baptized of the non-Christian elements, who, in the government estimates, are not yet segregated from the Mohammedans and Pagans:

Agusan.....	32,621
Bukidnon.....	20,000
Cotabato.....	6,000
Davao.....	33,140
Lanao.....	9,500
Sulu.....	1,000
Zamboanga.....	77,484
Total.....	179,745

3. LEGISLATION.

The legislative power, in so far as concerns the department government, now resides in the Philippine Commission.

The administrative council is an advisory rather than legislative body. Its powers of a legislative character are limited practically to appropriation of funds under the control of the department government, which are almost exclusively funds appropriated by the Commission from the insular treasury, the entire taxation revenue having been assigned to the insular, provincial, and municipal budgets as in the remainder of the Archipelago. All appropriations made by the council are subject to approval or disapproval by the Philippine Commission. In practice the Commission appropriates the funds required for the support of the department government upon the basis of estimates prepared by the department governor and approved by the council. These estimates, approved or modified by the Commission, are then passed by the council as the department budget.

Prior to the coming into effect of the organic act of the department and the creation of the administrative council important legislative powers were vested in the legislative council provided by the organic act of the Moro Province subject to confirmation by the Philippine Commission. This legislative council continued to func-

tion as a branch of the department government until the reorganization of September 1, 1914. The following is a list of titles of acts passed by it during the part of the year covered by this report:

No. 315. An act to amend Act No. 311 of the legislative council by providing for the employment of a captain of the San Ramon prison guard therein established.

No. 316. An act making appropriations for sundry additional expenses of the government of the department of Mindanao and Sulu for the fiscal year ending December 31, 1913.

No. 317. An act appropriating the sum of ₱80,000, or so much thereof as may be respectively necessary, for completing certain public works in the department of Mindanao and Sulu commenced during the year 1913.

No. 318. An act making appropriations for sundry expenses for the government of the department of Mindanao and Sulu for the fiscal year ending December 31, 1914, except as otherwise stated.

No. 319. An act making appropriations for sundry expenses of the government of the department of Mindanao and Sulu for the fiscal year ending December 31, 1914.

No. 320. An act appropriating the sum of ₱166,685.85, or so much thereof as may be respectively necessary, for certain public works, permanent improvements, and other purposes of the government of the department of Mindanao and Sulu.

No. 321. An act amending Act No. 314 of the legislative council entitled "An act providing for the reorganization, government, and inspection of the municipal police of the municipalities of the Moro Province and amending the provision of the municipal code of the Moro Province relating thereto."

No. 322. An act amending Act No. 286 of the legislative council entitled "An act providing for the protection of coconut trees from the ravages of certain beetles," and creating a corps of inspectors.

No. 323. An act prescribing the method of allowance of traveling expenses of department and provincial officers and employees and repealing contrary provisions of law.

No. 324. An act providing for the levy, assessment, and collection of an ad valorem tax on real property in the department of Mindanao and Sulu, creating the position of assessor for the department, and defining the powers and duties of such officer, and repealing existing inconsistent legislation.

No. 325. An act making additional appropriations for sundry expenses of the government of the department of Mindanao and Sulu for the fiscal year ending December 31, 1914.

No. 326. An act making additional appropriations for sundry expenses for the government of the department of Mindanao and Sulu for the fiscal year ending December 31, 1914, except as otherwise stated.

No. 327. An act appropriating the sum of ₱122,931.37, or so much thereof as may be respectively necessary, for certain public works, permanent improvements, and other purposes of the government of the department of Mindanao and Sulu.

No. 328. An act creating the position of superintendent of markets and repealing Act No. 224, entitled "An act creating the position of chief of the industrial office of the Moro Province, and for other purposes," and Act No. 267, entitled "An act to provide a system of industrial trading stations in the Moro Province for the use, benefit, and development of the Moro and other non-Christian tribes thereof," and for other purposes.

The following is a list of titles of acts passed by the Philippine Commission constituting special legislation for the department during the year 1914:

No. 2394. An act making appropriations for current expenses and public works and permanent improvements in the department of Mindanao and Sulu and the province of Agusan for the fiscal year ending December 31, 1914.

No. 2400. An act authorizing the governor of the department of Mindanao and Sulu to use the ₱2,000 appropriated by Act No. 2070 for a government exchange and the reimbursable fund therefor at Malaybalay, province of Agusan, for the construction of another exchange of the same kind at Talacag, same province, and for other purposes.

No. 2407. An act making appropriations for public schools, hospitals, and dispensaries, and extension of telegraph lines and wireless stations in the department of Mindanao and Sulu for the fiscal year ending December 31, 1914.

No. 2408. An act providing a temporary form of government for the territory known as the department of Mindanao and Sulu, making applicable thereto, with certain exceptions, the provisions of general laws now in force in the Philippine Islands, and for other purposes. (The organic act for the department of Mindanao and Sulu.)

No. 2409. An act extending to the department of Mindanao and Sulu the provisions of general laws providing for the organization, jurisdiction, procedure, and fees of justice of the peace courts, with certain exceptions, and for other purposes.

No. 2410. An act to amend section 61 of Act No. 136 regarding sheriffs, as amended, in its application to the department of Mindanao and Sulu, and for other purposes.

No. 2412. An act appropriating the sum of ₱5,000 for the salaries of the justices of the peace in the department of Mindanao and Sulu * * *

No. 2422. An act providing that the justices of the peace, if duly qualified lawyers, at the capitals of the provinces of the department of Mindanao and Sulu, except the province of Zamboanga, may act by direction of the secretary of finance and justice as ex officio registers of deeds for their provinces. * * *

No. 2423. An act making appropriations for current expenses and public works and permanent improvements in the department of Mindanao and Sulu for the fiscal year ending December 31, 1915.

No. 2429. An act providing a procedure for the first election of third members of provincial boards in the various provinces of the department of Mindanao and Sulu, and authorizing the governor of the department to fix the date for the holding of the first municipal elections therein. * * *

No. 2439. An act abolishing the position of department assessor of the department of Mindanao and Sulu, provided for in Act No. 324 of the legislative council, and applying to the department the provisions of Act No. 2238, as amended by Act No. 2363, with certain exceptions, and amending certain sections of aforesaid Act No. 324. * * *

The following is a list of acts of the Philippine Commission extending to the department of Mindanao and Sulu certain acts of the Philippine Legislature of general application:

No. 2315. An act renewing certain appropriations in Act No. 2208, as amended by Act No. 2285, until such time as the regular appropriations for * * * Agusan for the new fiscal year 1914 shall have been made.

No. 2396. An act making extensive to the department of Mindanao and Sulu the provisions of the provincial government act and other acts relative to the cedula tax and increased cedula tax, under certain conditions, and repealing Act No. 306 of the legislative council of said department and all other acts inconsistent therewith.

No. 2398. An act making appropriation for expenses of certain pensionados from * * * Agusan * * * for the new fiscal year 1914.

No. 2399. An act extending the provisions of Act No. 2300 to the territory inhabited by Moros or other non-Christian tribes and penalizing the taking away of any uncivilized person or member of any non-Christian tribe for the purpose of exploiting or exhibiting such person as a spectacle, and for other purposes.

No. 2402. An act making applicable to that part of the Philippine Islands inhabited by Moros or other non-Christian tribes Acts Nos. 2339 (the internal-revenue law of 1914) and 2347 (* * * reorganization of the courts of first instance and of the court of land registration). * * *

No. 2403. An act making applicable to that part of the Philippine Islands inhabited by Moros or other non-Christian tribes certain acts of the Philippine Legislature.

No. 2293. * * * Providing penalty for willful destruction * * * of any property of the Philippine library.

No. 2297. * * * Amending the third paragraph of section 790 of Act No. 190, as amended, by exempting municipalities and individuals declared insolvent from the obligation to pay the fee in proceedings for nonpayment of the cedula tax.

No. 2298. * * * Amending articles 81, 443, and 446 of the Penal Code.

No. 2305. * * * To make the fiscal year uniform for all branches of the government and coincident with the calendar year and to fix the time for making annual reports for officers of the different branches of the government, and for other purposes.

No. 2307. * * * Creating a board of public-utility commissioners and prescribing its duties and powers, and for other purposes.

No. 2317. * * * To amend section 8 of Act No. 1655, entitled "An act for preventing the manufacture, sale, or transportation of adulterated or misbranded or poisonous or deleterious foods, drugs, medicines, and liquors, and for regulating traffic therein, and for other purposes."

No. 2318. * * * Amending section 5 of Act No. 1798, entitled "An act to provide for the protection of animal life in the Philippines," by providing a penalty for the violation of certain provisions of said act.

No. 2320. * * * Abolishing the office of supervising railway expert created by Act No. 1507, and transferring the duties of said office to the board of public utility commissioners, and for other purposes.

No. 2329. * * * Amending section 14 of Act No. 2245, entitled "An act to regulate the practice of veterinary medicine and surgery in the Philippine Islands," by authorizing the board of veterinary examiners to issue without examination certificates for the practice of veterinary medicine to persons who were qualified to practice before the ratification of the treaty of peace with Spain.

No. 2331. * * * Amending chapter 29 of Act No. 190, entitled "An act providing a code of procedure in civil actions and special proceedings in the Philippine Islands," by providing for the summary settlement of estate of deceased persons in certain cases.

No. 2332. * * * Amending Act No. 1147 by providing for the free registration and branding of large cattle under 2 years of age under certain conditions.

No. 2333. * * * Relative to untrue, deceptive, and misleading advertisements.

No. 2335. * * * Amending section 348 of Act No. 355, known as the "Philippine customs administrative act," by providing that compensation to informers shall be paid with the approval of the secretary of finance and justice, by punishing certain persons who fail to report to a collector of customs any information in their possession concerning any fraud upon the customs revenue, appropriating ₱10,000 for carrying out the provisions thereof, and for other purposes.

No. 2337. * * * Declaring sections 85 and 194 of Act No. 2031, entitled "The negotiable instruments law," in full force and effect and repealing inconsistent provisions of law.

No. 2338. * * * Amending Act No. 2259, entitled "An act providing certain special proceedings for the settlement and adjudication of land titles," by providing for an additional method of payment of the cost of survey, monumenting, and registration proceedings, and for other purposes.

No. 2342. * * * Regulating the labeling, sale, and advertising of patent and proprietary medicines, fraudulent therapeutic appliance and devices, and for the protection of the people of the Philippine Islands against the exploitation of such articles.

No. 2352. * * * Providing for the taking of a new census of the Philippine Islands.

No. 2355. * * * Amending section 1 of Act No. 1729, entitled "An act making appropriations for the creation of a sinking fund for the payment of the bonds issued for public works under the provisions of Acts Nos. 1301 and 1444, and for the investment of such fund," by extending the time limit for loans to provinces and municipalities and providing for additional purposes for which such loans may be made.

No. 2358. * * * Amending Act No. 2163, entitled "An act creating a commission to secure, organize, and make an exhibit of Philippine products, manufactures, art, ethnology, and education at the Panama-Pacific International Exposition to be held at San Francisco, Cal., in the United States in 1914, making an appropriation therefor, and for other purposes," by authorizing the appropriation of money by provinces and municipalities for the preparation of provincial exhibits for the Philippine section of the Panama-Pacific International Exposition.

No. 2359. * * * Authorizing the loaning of funds deposited by municipalities with the provincial treasurer to other municipalities for the construction of school buildings under certain conditions.

No. 2362. * * * Amending certain sections of Act No. 2307, entitled "An act creating a board of public utility commissioners and prescribing its duties and powers, and for other purposes," and for other purposes.

No. 2364. * * * Providing for the punishment of persons guilty of infidelity in the custody of prisoners detained for or convicted of a crime punished by the laws enacted by the Philippine Commission or by the Philippine Legislature.

No. 2368. * * * Amending section 2 of Act No. 1749, entitled "An act making appropriations for the friar-lands bonds sinking fund created by Act No. 1034," by extending the time limit for loans to provinces and municipalities and providing for additional purposes for which such loans may be made.

No. 2371. * * * Amending Act No. 1407 by extending the provisions of subsection (b) of section 9 thereof to religious, educational, and charitable institutions.

No. 2380. * * * Providing for the inspection, grading, and baling of abaca (Manila hemp), maguey (cantal), sisal, and other fibers.

No. 2381. * * * Restricting the use of opium and repealing Act No. 1761.

No. 2382. * * * Amending Act No. 597, entitled "An act regulating the practice of pharmacy in the Philippine Islands," as amended by Acts Nos. 1921 and 2236, determining the subjects in which persons desiring to practice pharmacy in the Philippine Islands shall be examined, and for other purposes.

No. 2383. * * * Designating certain duties to stenographers of the courts of justice, and for other purposes.

No. 2384. * * * Granting to the Marconi Wireless Telegraph Co. of America a franchise to construct, maintain, and operate in the Philippine Islands a station for the reception and transmission of wireless long-distance messages.

No. 2385. * * * Amending subsection (d) of sections 2 and 3 of Act No. 1868, adding several paragraphs to the end of section 4 of said act, providing for other purposes and repealing Act No. 2258.

No. 2389. * * * To amend Act No. 2159, entitled "An act to regulate motor-vehicle traffic in the Philippine Islands, to provide for the registration of motor vehicles and the licensing of operators, and to require all vehicles on highways to carry lights, and for other purposes," by fixing a maximum rate of speed, and for other purposes.

No. 2325. * * * Amending section 13 of Act No. 926, known as "The public-land act," * * * made applicable to that part of the Philippine Islands inhabited by Moros or other non-Christian tribes in which Chapter IV of the public-land act is in effect. * * *

No. 2330. * * * Amending the second paragraph of section 15 of Act No. 1582, known as the "Election law," as amended by section 8 of Act No. 2045, by providing that inspectors of election may be appointed to any other office under certain conditions, and Act No. 2377, * * * amending subsection (j) of section 40 of Act No. 82, as amended by Acts Nos. 1909 and 2054, so as to authorize municipalities organized under Act No. 82 to fix or change the dates of their fiestas, * * * are hereby made applicable to the municipalities organized or to be organized under the municipal code in that part of the Philippine Islands inhabited by Moros or other non-Christian tribes. * * *

No. 2363. * * * Amending section 9 of Act No. 2238, by providing that general schedules of values of lands for the purpose of assessment shall be prepared by municipal councils within 30 days after being so required by provincial boards, * * * is hereby made applicable to such part of provinces in the territory inhabited by Moros or other non-Christian tribes as may be embraced within the limits of any municipality organized under Act No. 82. * * *

No. 2088. * * * Amending Act No. 2067, entitled "An act providing for the investment of a portion of the accretions to the gold standard fund in loans to the provinces and municipalities in the territory inhabited by Moros or other non-Christian tribes, for certain purposes, in securities authorized for the investment of funds of the Postal Savings Bank, and in interest-bearing bonds to assist in the construction of sugar centrals, and for other purposes," so as to fix the amount of the gold standard fund created under Act No. 938, authorize the deposit of the amount of the excess so fixed to the credit of the general fund of the treasury, and authorize the investment of a portion of the said gold-standard fund (section 3 thereof amended and made applicable to the department of Mindanao and Sulu).

No. 2413. An act making applicable to the department of Mindanao and Sulu Acts Nos. 2030 (* * * amending paragraph 5 of article 503 and articles 508, 512, and 520 of the penal code by imposing a severer penalty for the crimes of robbery and theft of large cattle), and 2387 (* * * qualification for appointment as notary public * * *).

No. 2417. An act making applicable to the department of Mindanao and Sulu all laws relating to the bureau of agriculture. * * *

Of the above legislation that of especial importance is discussed under other appropriate titles in this report.

Provincial boards and municipal councils have legislative powers generally analogous to those exercised by similar entities in the regularly organized provinces and municipalities. For municipal districts provincial boards exercise the powers of municipal councils.

4. POLICY OF GOVERNMENT.

The general policy of the Government may best be presented by quoting the preamble of the organic act (No. 2408, Philippine Commission, July 23, 1914) :

Whereas the change of government in the department of Mindanao and Sulu, effected in January last, necessitates certain reforms, and not only is the time ripe for these reforms, but they are insistently demanded by present conditions in said department; and

Whereas it is the desire of the people of the islands to promote the most rapid moral, social, and political development of the inhabitants of said department in order to accomplish their complete unification with the inhabitants of other provinces of the Archipelago; and

Whereas for the accomplishment of this purpose the extension thereto of the general laws of the country and of the general forms and procedures of government followed in other provinces, under certain limitations in harmony with the special conditions now prevailing in said department, is among other measures advisable and necessary, but always with the understanding that such limitations are temporary and that it is the firm and decided purpose of the Philippine Commission to abolish such limitations, together with the departmental government, as soon as the several districts of said region shall have been converted into regularly organized provinces: Now, therefore * * *

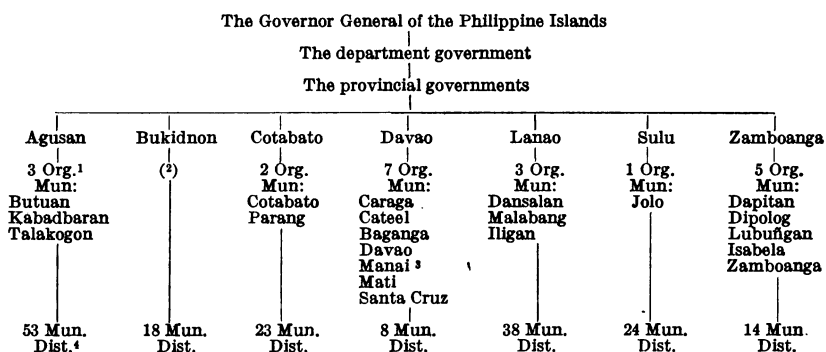
The governmental policy for the economic development of the great agricultural, forest, mineral, marine, and industrial resources of Mindanao-Sulu is that of encouragement of private initiative by all means compatible with the public interest which lie within the power of the insular, department, and local governments. Material assistance is sought for the small farmer both as to acquisition of titles to agricultural land and as to loans to assist during the period of clearing and bringing the land into production. Suitable coast-wise steamers and river launches are maintained by the government to afford dependable means of transportation of produce from coast and interior river points the commerce of which does not as yet warrant the establishment by private enterprise of regular service by commercial vessels. As rapidly as available resources permit, a definite public-works program is being carried out looking toward the provision of good roads and trails, wharves and other landing facilities, telephone lines, additional radio stations, and other public works of positive benefit and encouragement to agriculture, commerce, etc. By the establishment of hospitals at provincial capitals, and, extending out from them, chains of dispensary stations under trained attendants, and by the systematic efforts made in conjunction with the public schools to increase the economic efficiency of the people by

information and encouragement as to better hygienic and sanitary conditions, the advantages not only of curative but also of protective health measures are being placed within the reach of the masses of the people so far as the limited funds available will permit. In the intellectual and manual training of the people, looking toward civic and economic development, the public schools devote themselves exclusively to instruction and practical work having as definite objectives the qualifications of the boys and girls for agriculture, fisheries, and other industries appropriate to these communities.

A more comprehensive view of government policy may be had from the discussions in subsequent sections of this report of the various public services.

5. ORGANIZATION.

The following outline shows the organization of government for administrative purposes in Mindanao-Sulu:



Preliminary to the reorganization of the former districts as provinces September 1, 1914, the designation of the government of Moro Province was changed to department of Mindanao and Sulu (Act No. 2309, Philippine Commission, Dec. 20, 1913). By the same act the jurisdiction and control theretofore exercised by the secretary of the interior over the Province of Agusan and its subprovince of Bukidnon passed to the governor of the department of Mindanao and Sulu. These provisions became fully effective January 3, 1914, when the undersigned arrived at Zamboanga and formally assumed office. This organization continued until September 1, 1914, when a general reorganization was made pursuant to the provisions of Act No. 2408, Philippine Commission. This act, entitled "The organic act for the department of Mindanao and Sulu," by its chapters, "The provincial governments" and "The municipal governments," provides special forms of government for the provincial and local or municipal units believed to be best adapted to existing conditions and at the same time provides the bases for an administrative program having as its objective the extension to this region without avoidable delay of the provincial and municipal codes in force in the regularly organized provinces and municipalities of the northern provinces, thus accomplishing uniformity of administrative law and practice throughout the Archipelago.

¹ Organized municipalities.

² No organized municipalities in Bukidnon.

³ Organized effective Jan. 1, 1915.

⁴ Municipal districts.

6. FINANCE.

The department government closed the year 1914 with a balance of ₱109,920.27, notwithstanding the great loss in revenues (customs) occasioned by the suspension of foreign shipping, closing of customary markets to our export and import trade, and serious disturbance otherwise of the general financial situation. The problem of finance has been more difficult than that of public order.

Under the new organic act the department becomes dependent upon appropriations by the Philippine Commission from the insular treasury, as beginning January 1, 1915, taxation revenues will be distributed between the insular, provincial, and municipal treasuries as in the remainder of the Archipelago.

Provincial and municipal budgets for the period September-December, 1914, upon the reorganization, were prepared as nearly as possible in accord with the general scheme of the insular auditor; further progress in this direction has been effected in the preliminary budgets for 1915, and those for 1916 will doubtless be without special feature of variance from the uniform system of provincial and municipal accounts.

All the property, land, buildings, equipment, furniture, and supplies of the department government devoted to provincial and municipal services after the reorganization have been transferred without charge to the accounts of the respective governments having the use or charge thereof. The stated money value of these properties is ₱1,348,422.49. Other property of the department, consisting of the complete prison and farm plant at San Ramon having a stated value of ₱278,439.84 and other improvements and growing crops of an estimated value exceeding ₱100,000, were transferred without charge to the bureau of prisons after the close of business December 31, 1914, when the administrative control of this establishment was, by executive order of the Governor General, passed to the bureau of prisons, thereby making the San Ramon Penal Farm an insular and no longer a department institution.

The plant account or capital investment represented by the property remaining in the accounts of the department government after the completion of the above-stated transaction was ₱861,350.69, and is stated in detail at the appropriate place later in this report.

Practically until the close of the last fiscal year the entire administration of civil affairs in so much of this department as then constituted the Moro Province was under the immediate charge of the commanding general, United States troops, stationed in the military district which corresponded to the present civil department of Mindanao-Sulu. Not only were steamships, launches, and other means of water transportation absolutely essential to civil as well as to military administration supplied and maintained wholly or in great part from Army appropriations but the large prison guard required at San Ramon was supplied from United States troops (scouts). Civil administration had been carried on in the Moro Province by the utilization of Army officers and enlisted men, transportation, and supplies to a considerable though gradually decreasing extent, all at the expense of federal funds. The very limited revenues of the province were utilized for the employment of civil officers and

employees as conditions permitted and qualified persons became available, and in supplementing, so far as might be, the facilities afforded by federal personnel and material. The shifting of the burden of expense of civil administration from Federal to Philippine revenues had been in process of accomplishment under the military officers serving also in the capacity of civil officers. Especially during the latter part of 1913 the withdrawal of military support from the burden of civil administration had been in great part accomplished. There remained, however, the relatively heavy expense of water transportation used in the administration of affairs in the territory formerly comprised in the Moro Province. Although, due to the courtesy of the Army, launches were loaned to the civil establishment until such time as they might be replaced or otherwise withdrawn, yet the expense of maintenance and, in some instances, of very extensive overhaul and repairs constituted a heavy charge that had to be met during the current year from Philippine civil revenues. Further, the expense of the civil guard to replace the military guard at the San Ramon Prison represented a very considerable item of expense not previously chargeable against local funds. Other smaller items of a miscellaneous character, but aggregating a considerable amount, had now for the first time to be provided from civil funds.

All this was required to take over the existing civil organization, and obviously no extension of activities might be undertaken, even in the very important and urgent branches of local government organization, primary schools, and public health, unless material aid might be had from the insular treasury. Fortunately, this aid was forthcoming in the form of appropriations by the Philippine Commission from the insular treasury of an aggregate amount of ₱320,241, of which ₱225,000 was for primary schools, public hospitals, and dispensary stations, and the construction of roads, trails, and telephones in the territory which had constituted the Moro Province; ₱67,516 toward the current expenses of administration; and ₱27,725 for public works and permanent improvements in the province of Agusan, which included the then subprovince of Bukidnon.

By the reorganization as independent provincial governments of the five district governments—Cotabato, Davao, Lanao, Sulu, and Zamboanga, and the subprovince of Bukidnon—a considerable immediate increase in administrative expense was necessarily caused, and consequent nominal overdrafts existed in their general fund accounts at the close of the year. Provisions, however, were made to adjust these without prejudice to the service or delay in the payment of obligations. Under normal conditions these provincial governments might develop their potential revenues during the coming fiscal year sufficiently to obviate the necessity thereafter for aid for local administrative charges, except in the case of Bukidnon. Should, however, agricultural and industrial conditions continue abnormal during 1915 by reason of drought, locusts, and the lack of markets, and ordinarily remunerative prices for hemp, copra, lumber, and pearl shell, financial aid for local administration will have to be continued until economic conditions greatly improve. For public works activities, especially the extension of roads and the construction of

public buildings, the extension of primary schools and of dispensary and hospital facilities, and even the maintenance of the present organizations, insular aid is the only resource for 1915, and will continue to be so thereafter in proportion to the desired rapidity of progress in the assurance and extension of stable government in this region.

With a restoration of normal prices for our principal products, the increase in production which seems assured by new coconut and other plantations now coming into bearing and the immigration occurring without material encouragement or aid from the government, the seven provincial organizations constituting the department of Mindanao and Sulu should be self-supporting to a materially increasing degree each year. I repeat, however, that there can be no assurance of continued stable government, no extension of government contact and control to the communities scattered throughout the interior and on the more remote islands, no extension of primary school and public-health activities, nor even maintenance of the present organization under the last two heads mentioned without continued financial aid from the insular government.

Any study of the matter, however superficial, can not but bring forth convincing arguments that it is to the material and greatest interest of the Philippines that Luzon and the Visayas make whatever of present sacrifice may be necessary in order to extend such financial aid to the public services in Mindanao-Sulu that the latter may quickly be made in fact a part of the Philippines. At present, commercially and socially, southern and central Mindanao and the Sulu group pertain rather to Singapore than to Manila, and must be acknowledged as little more than politically Philippine territory.

At the close of business December 31, 1914, the department treasurer transferred his funds, property, and all matters pertaining to the accounting therefor to a department cashier and disbursing officer, in which capacity the chief clerk and deputy of the provincial secretary-treasurer of Zamboanga acts in addition to the duties of his regular office. After closing out all matters pertaining to his money and property accounts, the department treasurer will retire from office, the administrative duties being taken over by the department secretary or other officer in accordance with the plan for the eventual elimination of the entire department government.

The following table gives the summaries of the financial operations during the year 1914 of the department, provincial, and municipal governments, the data having been supplied by the insular auditor, property being stated in terms of money value:

Mindanao and Sulu Department balance sheet.

	December 31, 1914.	December 31, 1913.	Increase (+), Decrease (-).
ASSETS.			
Current assets unencumbered:			
Cash.....	₱ (30,662.44)	₱ 74,385.66	- ₱ 105,048.10
Advances to disbursing officers.....	1,044.02	26,729.77	- 25,685.75
Accounts receivable.....	91,812.80	50,373.91	+ 41,438.89
Supplies and sales stock.....	20,860.78	45,488.53	- 24,627.75
Industrial products.....	29,160.35	.....	+ 29,160.35
Total current assets.....	112,215.51	196,977.87	- 84,732.36

Mindanao and Sulu Department balance sheet—Continued.

	December 31, 1914.	December 31, 1913.	Increase (+), Decrease (-).
ASSETS—continued.			
Deferred charges.....	₱577.77	₱3,337.76	- ₱2,809.99
Cash for current liabilities.....	17,499.34	15,699.24	+ 1,800.10
Cash for public and private trusts.....	55,242.90	91,311.43	- 36,068.53
Term assets:			
Loans to municipalities.....	15,000.00	23,000.00	- 8,000.00
Fixed assets:			
Land.....	117,040.50	174,085.50	- 57,045.00
Buildings.....	407,820.11	547,674.89	- 139,854.78
Roads, bridges, and ferries.....		833,088.21	- 833,088.21
Parks and monuments.....		8,606.66	- 8,606.66
Waterworks and artesian wells.....	1,781.63	1,288.16	+ 493.47
Telegraph and telephone lines.....		12,713.00	- 12,713.00
Docks and wharves.....	199,346.55	251,995.39	- 52,648.84
Total value of plant.....	725,988.79	1,829,451.81	-1,103,463.02
Watercraft and appurtenances.....	33,951.75	(1)	(1)
Motor vehicles and accessories.....	14,371.00	(1)	(1)
Land transportation equipment (except motor).....	23,042.51	(1)	(1)
Industrial machinery and implements.....	7,126.74	(1)	(1)
Hand tools.....	3,384.90	(1)	(1)
Furniture and office equipment.....	68,094.28	(1)	(1)
Miscellaneous equipment.....	12,390.72	(1)	(1)
Total value of equipment.....	162,361.90	296,770.95	- 134,409.05
Total fixed assets.....	888,350.69	2,126,222.76	-1,237,872.07
Total assets.....	1,088,886.21	2,456,599.06	-1,367,712.85
LIABILITIES.			
Current liabilities:			
Accounts payable.....	17,499.34	15,699.24	+ 1,800.10
Public and private trusts:			
Municipal funds.....		22.16	- 22.16
Special funds.....	6,576.83	25,032.18	- 18,455.35
Municipal deposits.....		7,816.88	- 7,816.88
Deposit and trust funds.....	48,666.07	22,653.98	+ 26,012.09
Advances, insular and special.....		35,786.23	- 35,786.23
Total public and private trusts.....	55,242.90	91,311.43	- 36,068.53
Term liabilities:			
Loans payable.....	42,000.00	42,000.00	.....
Total liabilities.....	114,742.24	149,010.67	- 34,268.43
NET WORTH.			
Current surplus:			
General fund—			
Appropriated.....		20,019.41	- 20,019.41
Unappropriated.....	109,920.27	130,350.40	- 20,430.13
Total general fund.....	109,920.27	150,369.81	- 40,449.54
Road and bridge fund:			
Appropriated.....		11,684.25	- 11,684.25
Unappropriated.....	2,873.01	36,811.57	- 33,938.56
Total road and bridge fund.....	2,873.01	48,495.82	- 45,622.81
Other provincial funds:			
Appropriated.....		1,500.00	- 1,500.00
Total current surplus.....	112,793.28	200,365.63	- 87,572.35
Principal account surplus, represented by:			
Term and fixed assets less term liabilities.....	861,350.69	2,107,222.76	-1,245,872.07
Total net worth.....	974,143.97	2,307,588.39	-1,333,444.42
Total liabilities and net worth.....	1,088,886.21	2,456,599.06	-1,367,712.85

¹ Comparative statement of equipment items for 1913 not shown owing to change in classification for 1914.

7. PUBLIC ORDER.

A state of peace exists throughout Mindanao-Sulu.

As to public order in future, assuming the maintenance and extension of adequate public services and civil administrative control throughout all this territory, there appears no reason for anticipating any general disturbance of peace conditions or armed resistance to the authority of the government more serious than that of an occasional small and purely local band of criminals bent on robbery or the vendetta, in accordance with the olden customs of redressing personal or family grievances. The moral effect of the presence and availability in case of emergency of the United States forces assure the maintenance of order by the constabulary and other agencies of the civil establishment.

There has been a general movement of divers elements during the year having as objective the elimination, by submission to the government or otherwise, of organized outlawry wherever it existed within the department. In Cotabato on May 19, 1914, the notorious Datu Alamada with 500 followers surrendered to the provincial governor through the efforts of Mr. Ignacio Ortuoste, now assistant to the provincial governor, and of Mr. Rosauo Lualhati, then agricultural colony inspector and now provincial secretary-treasurer of Bukidnon, in conjunction with and well supported by Lieut. C. B. Carter, Philippine Constabulary. This undertaking marked a radical departure as to methods from those ordinarily followed heretofore, and the department governor is indebted to the Hon. Vicente Ilustre, member of the Philippine Commission, chairman of the committee on Mindanao-Sulu affairs, for bringing Mr. Ortuoste to his attention.

Alamada had for many years refused to recognize the authority of the constituted government, and had, with a following claimed to aggregate 3,000 people, sought the more remote interior and mountainous districts. There he successfully evaded governmental control, and on many occasions escaped after engagement with the military and constabulary forces. Various more or less notorious outlaws had found refuge with Alamada, and when he surrendered these came with him. Among them was Bunga, the son, and also two nephews of the late Datu Ali, who for some years was the most powerful and recalcitrant of the native chieftains in Cotabato, necessitating to destroy his organization and power an extensive military campaign which culminated in his death in combat with the military on October 22, 1905. There also surrendered with Alamada the outlaw Carabao, who deserted several years ago from the Lanao constabulary and had subsequently given the authorities considerable trouble. After surrender Alamada and his people were at once located in the Lubuñgan River Valley, on a site selected by the government and well suited to agriculture, where they have since continued submissive to government and otherwise conducting themselves well. Alamada visited Manila some months subsequent to his surrender, and returned apparently fully convinced of the wisdom of submission to government and the pursuit of orderly lawful industry by himself and his people. There is now at large no outlaw leader or band in Cotabato Province.

At the beginning of the year expeditions were still being made on the island of Basilan (Zamboanga) against the Yakan Atal and his outlaw band. This outlaw, with his followers, succeeded in evading capture by hiding in the mountains and swamp jungles, and by his depredations seriously disturbed public order on Basilan and adjacent islands. Through the activity and resourcefulness of Headman, now deputy governor, Datu Gabino Cuevas, Atal was killed and the remainder of his band killed or captured on March 6, 1914. Since then Basilan has been peaceful and prosperous.

On October 30, 1914, the Subano Datu Romuldo, who, with his band, had succeeded for several years in pursuing a course of outlawry, with his hiding places in the mountains of the northeastern part of Zamboanga Province, was induced by Deputy Gov. Jacob Verhey, of Margosatubig district (Zamboanga), to come in voluntarily and surrender, bringing his followers with him. Romuldo and his people were given a location, selected by the government and satisfactory to him, where, with his people, he has since continued engaged in agriculture and obedient to government. There has thus been disposed of the last outlaw leader in the province of Zamboanga.

The only localities in which ordinary security of life and property has been menaced during the year by known criminals are in the Island of Sulu, especially the eastern end, where a few scattered outlaws have succeeded in evading capture by hiding themselves in mountain and swamp jungles. Systematic pursuit of these fugitives, in which the law abiding elements are now assisting, is being carried on by the constabulary; this pursuit will continue until all these criminals are apprehended. In the more inaccessible mountains and other remote districts for which we have not yet funds to provide constabulary stations or other resident government agency, clan and family feuds find expression in occasional crimes of violence. Strangers coming in to settle or trade are sometimes threatened or otherwise molested, but instances of this character noticeably decrease as the zone of influence and control by the government is extended.

Crimes of violence by individuals or bands have been remarkably few in number during the year, especially when all the circumstances are considered—the substitution of the seemingly weaker civil authority for the customary military power of government; the necessary reduction of strength and number of garrisoned stations by reason of the relief of the Army, and especially the scouts, from field and out-station duties, which are now wholly dependent upon the constabulary and police; the severe drought of nearly two years' duration, which in most localities has caused two successive crop failures and consequent food shortage; and the loss of customary employment by several thousand local laborers because of the closing down of sawmills and the cessation of plantation activities, pearl fishing, and other enterprises whose products have been partly or wholly deprived of profitable market by the European war.

The United States troops in Mindanao-Sulu, except individual members of the service and staff corps, consist of Philippine Scouts only. These military forces are stationed as post garrisons at five points, viz: Camp Overton and Camp Keithley in Lanao, Ludlow

Barracks at Parang, Cotabato, Augur Barracks at Jolo, Sulu, and Pettit Barracks at Zamboanga. Through the courtesy of Gen. Barry, commanding the military department of the Philippines, Capt. Allen S. Fletcher, of the scouts, has continued during the year on the special duty which he had begun in 1913, of establishing contact with and control over the inhabitants of the region lying to the eastward of Lake Lanao. No other officer or organization of the Army is engaged in civil administration with the department government or any of its branches. Two enlisted men of the Army Hospital Corps, through the favor of the military authorities, have continued in dispensary and public-health work, one at Tamparan, under Capt. Fletcher, and the other in the Cotabato River Valley.

The Army had formerly furnished the guard for the penitentiary at San Ramon, near Zamboanga. In the latter part of the year 1913 Capt. Peter Peterson, Philippine Scouts, was charged by the commanding general with the duty of organizing a civil prison guard. This was completed and the military guard relieved February 3, 1914. Capt. Peterson continued on duty as commander of the civil guard until November 22, 1914, when he returned to his military duties, having created and trained an efficient civil prison guard. This organization for reasons of economy was planned originally and later reduced as small as consistent with the routine requirements of the service. In addition to the safe custody of the prisoners in other respects, the guards, without the assistance of other forces, have been able to maintain good order on the extensive plantation pertaining to the prison. However, on the night of December 5, the telephone line being down between San Ramon and Zamboanga, a messenger came to constabulary headquarters with report that an attack was being made on the prison inclosure by prisoners who had escaped some days previously. As all the constabulary, except six men, were absent on patrols—some of the six being very footsore or otherwise partially disabled—request was made on the commanding officer, Pettit Barracks, for such force as might be necessary to meet the reported emergency. Immediate response by the military relieved the uneasiness of the people of the village of Zamboanga. Upon arrival at San Ramon, the scout detachment assumed guard over the prison, permitting the prison guards to go in pursuit of the fugitives who, as later developed, had not undertaken to attack the prison, but, under cover of the darkness, to steal a small boat from the beach in the vicinity of the entrance to the prison inclosure and make their escape. The scouts did excellent work also assisting in pursuit of the escaped prisoners, capturing four of them. The emergency arose at night after the closing of telegraphic communication with Manila and the local Army and civil authorities necessarily acted wholly upon their own responsibilities in accordance with what seemed to be the facts. The following morning telegraphic reports were forwarded to the Governor General and commanding general at Manila, who confirmed the action taken. Upon the arrival of constabulary, the civil guards resumed their ordinary duty and the troops were withdrawn. No further disturbance of public order occurred. This is the only occasion during the year when the Army has been called upon to assist in the maintenance of public order.

The constabulary is in charge of the maintenance of public order in Mindanao-Sulu practically upon the same basis as in the regularly organized provinces, although under the organic act of the department government the governor is charged with the duty of directing, through the district chief, the use and control of the constabulary. This duty of the department governor has been little more than nominal since the efficiency and resourcefulness of the district chief, as invariably demonstrated, have merited the entire confidence of and delegation of authority by the department governor.

The strength of the constabulary in the department at the close of the year was 60 officers and 972 men; organization, district headquarters, and 21 companies, the former and 1 company at Zamboanga; 2 companies in Agusan; 1 company in Bukidnon; 4 companies in Cotabato; 3 companies in Davao; 3 companies in Lanao; and 7 companies in Sulu; distributed at 1 station in Zamboanga Province, 3 in Agusan, 1 in Bukidnon, 5 in Cotabato, 5 in Davao, 4 in Lanao, and 7 in Sulu. This strength of officers and men is wholly inadequate to serve the purpose of providing patrols through the regions in which the government is undertaking to exercise effective control and is, of course, inadequate to provide personnel for the extension of such control by the establishment of new stations at more remote points and maintain reasonably frequent patrols to the places now infrequently visited by any agent of the government.

In all its diverse activities the constabulary, officers and men, have acquitted themselves well, frequently with distinction and great merit. All other branches of government here are deeply indebted to the constabulary as the pioneer force which under our present organization prepares the way and makes possible other activities of public service. During the year the constabulary of this department has made 143 expeditions and 1,371 patrols and has taken up 317 shotguns, 73 rifles, and 57 muskets, revolvers, etc., making a total of 447 firearms, which were held by private persons without licenses and in violation of law.

By reason of the lack of constabulary it has been necessary for some of the provincial governments to provide mounted or special police for patrols and other routine duties ordinarily performed by the constabulary. Typical of this arrangement are the island of Basilan and the district of Margosatubig, Zamboanga, each of which is under the immediate charge of a deputy governor, who has a small number of special police for the duties just indicated. This is not in accord with the general administrative practice, nor, under the existing organization and the general scheme of distribution of revenue and expense now in force in the government as a whole, is it a proper charge against provincial funds.

Municipal police organized as such exist only in the regularly organized municipalities, of which there are 21 in the department. Special effort is being made to create and maintain efficient municipal police forces, and that at Jolo has merited the especial commendation of the district chief of constabulary.

With the present strength of constabulary, there can not be a positive general advance of control into the more remote localities in which modern government, either in the days of the Spaniards or since American occupation, has never yet been permanently and effectively established.

8. JUSTICE.

For the administration of justice, the jurisdiction of the supreme court of the Philippine Islands is extensive over Mindanao-Sulu upon the same basis as the remainder of the Archipelago.

Courts of first instance hold regular and, when necessary, special sessions in the several provinces of the department for the trial of civil and criminal causes. These courts are included in the general judiciary scheme of the Archipelago as the twenty-fourth, twenty-fifth, and twenty-sixth districts; the first includes the province of Surigao, in addition to the province of Agusan, the residence of the judge being in the former; the twenty-fifth district includes the province of Misamis, in addition to the provinces of Bukidnon and Lanao; the twenty-sixth district comprises the provinces of Cotabato, Davao, Sulu, and Zamboanga, with residence at the capital of the latter. There is one auxiliary judge to assist the judges in these three districts. New cases have been promptly dispatched and the dockets have been cleared of old cases. Expedition and fairness in the trial and determination of criminal cases and the promptitude and wisdom of decisions in civil litigation have received popular approval and gone far to secure for the judiciary the confidence and respect of the people.

In the organized municipalities there are justice of the peace courts under the general law now applicable throughout the islands. For the municipal districts the duties of justices of the peace are performed *ex officio*, under the supervision of the judges of first instance, by provincial governors and their deputies when appointed by the Governor General and confirmed by the Philippine Commission as in the cases of regular justices of the peace.

The civil and penal codes and general laws in force in the remainder of the Archipelago, with slight modifications, are applied in Mindanao-Sulu, either directly as such or in special legislation, affording a temporary *modus vivendi* pending the readiness of the people here to adapt themselves to the jurisprudence of the remainder of the Philippines. To this end the efforts of the government are devoted.

The special law of most import to those elements of our population not yet prepared for the application of the Philippine codes and general laws is Act No. 2520, enacted by the Philippine Commission April 3, 1915. This is a modification of the general law providing assessors to sit with judges of first instance and justices of the peace in the trial of cases. By this special legislation assessors are authorized in the courts of Mindanao-Sulu, and the following special permissive, not mandatory, provisions are made:

Provided, That in criminal cases in which the accused, and in civil cases in which the parties, or any of them, are Mohammedans or pagans, judges of first instance or justices of the peace may, when such action is deemed wise, appoint as assessors persons not included in such list, and in making such appointment judges of first instance and justices of the peace shall give preference, wherever possible, to "cadis" or "kalis" and "panditas," or such Mohammedans and pagans as are versed in their local laws and customs.

SEC. 3. *Mohammedan laws and customs*.—Judges of the court of first instance and justices of the peace deciding civil cases in which the parties are Mohammedans or pagans, when such action is deemed wise, may modify the application of the law of the Philippine Islands, except laws of the United States

applicable to the Philippine Islands, taking into account local laws and customs: *Provided*, That such modification shall not be in conflict with the basic principles of the laws of the United States of America. * * *

Request for the application of the above special provisions perhaps will not ordinarily be made. However, in criminal cases involving domestic relations and in civil cases of more than ordinary local significance, especially the partition of estates, these statutory provisions are essential to the administration of justice from the standpoint of popular opinion of the best elements interested.

The department attorney is charged with the duties of public prosecutor as well as legal adviser in civil affairs of the department, provincial and municipal governments. He also (by deputy) performs the duties of register of deeds, except in the province of Agusan, where the justice of the peace at the provincial capital acts *ex officio*.

The operations of the office of register of deeds during the year may be summarized as follows:

Documents registered, mortgages, etc.....	855
Titles issued (covering about 9,000 lots).....	2,798
Fees	P2,611

For the province of Agusan the provincial fiscal of Surigao acts as public prosecutor during court sessions, as does the provincial fiscal of Misamis for the province of Bukidnon under temporary designation by the secretary of finance and justice.

The work of the office of the department attorney during 1914 has involved an immense amount of labor in research and examination of existing legislation, drafting of memoranda, reports, and suggested new legislation. There has been a considerable number of criminal cases, but none of extraordinary importance.

The following is a brief summary, by provinces, of the criminal cases dispatched in Mindanao-Sulu during the year covered by this report:

Agusan.....	37
Bukidnon.....	7
Cotabato.....	18
Davao.....	44
Lanao.....	27
Sulu.....	197
Zamboanga.....	138
Total.....	468

There have been brought into court during the year about 32 land cases and 8 other civil cases in which the government was interested.

To meet the large amount of work involved in the drafting of the bill from which resulted the organic act of the department and related matters, there was created, beginning April of this year, the office of special attorney. All the work of this office was dispatched with promptitude and in a highly satisfactory manner. This office was abolished on December 31, 1914, and the special attorney appointed department attorney, the former department attorney having been promoted to the position of department secretary. The unfinished business of codification, etc., with which the special attorney was charged has been taken over by the office of the department attorney and the personnel of the latter and an additional deputy fiscal provided.

In the program of elimination of the department government the point will soon be reached when the office of department attorney may be discontinued and the scheme of provincial fiscals now in force elsewhere in the islands extended to the provinces of the department.

9. PUBLIC HEALTH.

The public health during the year has not suffered seriously from epidemic or dangerous communicable disease. Bacillary dysentery appeared in the Cotabato valley, but was successfully combated by the local health authorities and dispensary facilities; typhus fever was checked and apparently eradicated by the medical officer of the Army at Camp Keithley, Lanao; malaria revived in malignant form in a few localities of the Agusan valley for some weeks, and lack of personnel and other facilities delayed somewhat effective relief. Malaria, intestinal parasites, and infant mortality are sources of the most imperious demands upon the public health authorities.

The public health service of the department is divided as to supervisory control between the insular bureau of health, which exercises jurisdiction over the provinces of Agusan and Bukidnon, and the chief health officer of the department, who supervises the service in the provinces of Cotabato, Davao, Lanao, Sulu, and Zamboanga. This seeming anomaly is due to the fact that the territory comprised within the former Moro Province was under local control independent of the insular bureau of health.

The program of unification of all the territory within the department with the remainder of the Archipelago for the administration of all public services contemplates the extension of the jurisdiction of the bureau of health to include the remaining five provinces here. Preparations to this end are being made, and it is expected that the extension may be effected not later than January 1, 1916, the present arrangement being continued during 1915 in order to permit the completion of construction and organization projects, the plans for which, including financial arrangements, have been concluded. The laws, regulations, and methods of the bureau of health are being put into force here, gradually displacing those formerly in effect. The transition from local to insular control may thus be made in an orderly manner without that prejudice to the public interest which apparently would have been unavoidable had the change been made abruptly.

There has been made a most gratifying advance in the public-health service by the establishment of new hospitals and field dispensary stations, the former under the immediate charge of qualified physicians and surgeons and the latter in charge of graduate nurses or practicanes. The origins of this organization and service were the military post and field hospitals and dispensaries in which formerly the public, especially indigent natives, received medical and surgical assistance. This service to the civil population was gradually transferred, prior to the period of this report, from the Army to the account of local civil funds. Maj. E. L. Munson, Medical Corps, United States Army, as chief health officer of the Moro Province and later of the department, carried forward the plan of com-

bined provincial hospitals and extension work through dispensary outstations, which, it is understood, he initiated.

Maj. Munson was relieved from the duties of chief health officer by military orders taking him to Manila, and his civil duties here were assumed on July 16, 1914, by Dr. Jacobo Fajardo, from the insular bureau of health, who has continued as chief health officer through the remainder of the year. There are now no medical officers of the Army on duty in the public-health service of the department. Two Army hospital corps men are rendering service at field dispensary stations, one in Lanao, in addition to his regular military duties, and the other in connection with the Cotabato agricultural colonies, as stated in a previous section of this report. Three medical officers of the Philippine Constabulary are on duty as provincial health officers of Lanao, Sulu, and Cotabato, respectively. One of the constabulary medical officers, the provincial health officer of Cotabato, is a Filipino. All other officers and employees of the public-health service in the department are civilians and Filipinos.

The scheme as originally outlined for provincial hospitals and field dispensaries or outstations has been elaborated and its scope materially extended. Especial credit is due Chief Health Officer Fajardo for the recent initiation of what are termed secondary dispensaries in public schools at points where no field dispensary is located, the teachers being instructed in the use of and supplied with the medicines, supplies, etc., which may safely be intrusted to them for use in relieving ailments, physical ills, and injuries which, in the absence of skilled medical and surgical assistance, they should undertake to relieve. Government hospitals are now in operation at the provincial capitals of Agusan, Cotabato, and Lanao; funds are available for the construction and equipment of a hospital in Sulu, the building for which is now in process of construction and is expected to be in operation within a few months. A hospital open to the public is maintained by private philanthropy and operated under Bishop Brent's control at Zamboanga. A hospital understood to be under the direction of and supported by a Congregational Church mission is located at Davao and available to the public. For Bukidnon Province alone has no hospital provision been made, due to the obviously more compelling demands for hospitals and public-health relief in the other provinces which do not enjoy the benefits of so favorable climatic conditions and the highly creditable results of the work in public sanitation carried on in all the villages of this province for some years past.

Special mention should be made at this point of the material public benefits derived from the Zamboanga Hospital and the dispensary at Jolo, which have been maintained at the expense of private philanthropy under Bishop Brent's direction; also to the Congregational Mission Hospital at Davao the thanks of the government are due for public service rendered. These private institutions are maintained wholly at the expense of private funds and without dependence upon financial aid from the government.

Of dispensaries maintained by the government and operated under the chief health officer of the department there are at the close of the year 47, distributed among the provinces as follows: Cotabato, 9;

Davao, 12; Lanao, 9; Sulu, 10; and Zamboanga, 7. For the year 1915 provision has been made for 12 additional dispensaries, to be located as follows: Province of Cotabato, 2; Davao, 2; Lanao, 1; Sulu, 2; and Zamboanga, 5. There are included in the foregoing figures only those dispensaries which will be in charge of graduate nurses or practicanes. The number of secondary dispensaries in charge of teachers can not be determined until the department superintendent of schools shall have decided upon the additional schools to be established for the next school year.

Notwithstanding the fact that all the government hospitals and dispensaries were not in operation from the beginning of the year, and that during a portion of the earlier period of operation some of the dispensaries did not render complete reports, there were definitely reported a total of 130,562 treatments given by government dispensaries in the five provinces under the jurisdiction of the chief health officer. The more frequent ailments calling for relief were malaria, skin diseases, and intestinal parasites.

The government hospital at Cotabato admitted during the year 749 cases for treatment; that at Dansalan (Lanao) 192 cases. These hospitals were not opened to the public until February 1 and March 10, 1914, respectively. While Mohammedans and pagans were at first suspicious and unwilling to enter a hospital for medical or surgical treatment, in both the Cotabato and Lanao hospitals this attitude has rapidly changed to one of popular acceptance and appreciation of hospital facilities, even to the surprising degree that women of good families apply for admission.

On account of the lack of qualified medical practitioners and trained subordinate personnel in Mindanao-Sulu, it has been necessary to secure qualified persons from the northern provinces. Three physicians and all graduate nurses have thus been secured. The personnel under the direction of the chief health officer of the department at the close of the year comprised 8 medical officers, 14 trained nurses, and 33 practicanes, all males.

Medical officers, trained nurses, and practicanes have gone to the most remote localities in the department in the performance of their duties, and ordinarily without guards or companions. Dispensaries have been established and are being conducted successfully by graduate nurses and practicanes at many points away from Army garrisons or constabulary stations. In no instance has the public-health personnel been subjected to violence, or even threats, from the people among whom they work. Mohammedan and pagan communities have voluntarily contributed labor and materials of local production for the establishment of dispensary stations. The importance and value of the work of the public-health personnel during the past year can not be exaggerated when viewed not only from the standpoint of medical and surgical relief but from all other significant points, and especially that of the establishment of amicable contact and control by the government over the Mohammedan and pagan communities within the department. The work has been and is true pioneer work of inestimable and enduring value.

The annual report of the chief health officer of the department, containing statistics and a more detailed discussion of the undertakings and results of that branch of the service during the year, will be furnished the director of health.

POTABLE WATER SUPPLY.

The problem of supplying potable water to the more important towns has, of course, received attention heretofore. Due, however, to lack of funds, Malaybalay, Bukidnon, alone of the provincial capitals, has been provided with a fairly adequate modern system of municipal water supply, while Butuan, Agusan, has a system which partially answers to its needs.

At Jolo, in addition to the military water service, which in a limited degree has been available to the civil population, there is a gravity system, installed by the Spaniards, which furnishes an inadequate supply at one fountain in the village of Tulay, where most of the civil population of the municipality of Jolo reside. The water supply for both these systems comes from inhabited areas and is otherwise unsatisfactory.

For Zamboanga work had been begun in the latter part of 1913 on a municipal water system, to be supplied by pumping from the Tumaga River, not far from the town. Further investigation early in 1914 revealed the fact that a gravity supply was practicable, thereby avoiding the heavy fixed charge of fuel and wages for a pumping plant and securing the additional advantage of taking the water from the river at a point in the mountains beyond probable contamination from inhabitants. The plans of the original project were accordingly modified, and while some delay has necessarily occurred on this account, and also because of the difficulties of securing contracts for the supply of steel and other imported material, there seems no doubt but that the installation will have been completed and in operation some time during the next year. The cost of this project is estimated at ₱247,250. The water will be taken from the Tumaga River at a point in the mountains 14 kilometers from the town of Zamboanga and well above human habitation. A bureau of lands survey of the entire watershed has been completed and reservation by executive order requested, thus assuring absolute control and protection of an abundant supply of potable water for Zamboanga and its adjacent barrios.

Five additional artesian wells, producing good potable water, have been secured in barrios of the municipalities of Kabadaran and Butuan, Agusan. The local water supplies in Talakogon and Jabonga, in the same province, have also been improved.

Good potable water from near-by mountain streams has been made available by rams or gravity for Dalirig and Tangkulan, province of Bukidnon.

Plans have been prepared and funds are available for the installation of an adequate potable water supply for the village of Parang, immediately adjacent to the military reservation of Ludlow Barracks. The present water supply of this village is obtained from the military pumping plant at a cost beyond the financial resources of the municipality. The new supply will be by hydraulic ram.

There is now under investigation municipal water supply for Dansalan, the provincial capital of Lanao, by hydraulic ram from the Agus River, while for the provincial capitals of Cotabato and Davao an effort to provide artesian water seems to be the first step to be taken. Arrangements are pending to secure from the bureau

of public works, under the customary arrangement of joint expense by the insular government and the municipal government interested, the service of a deep well-boring machine for the coming year. Butuan, the provincial capital of Agusan, formerly a most unhealthy place, due in great part to the lack of potable water, was provided, prior to the year 1914, through the efforts of the secretary of the interior, with the artesian wells which have greatly improved the situation there. It seems probable that no less success may be expected from artesian well undertakings at Cotabato and Davao.

An investigation is being made to determine the best method of securing an ample supply of potable water for the town of Jolo, which includes the important commercial community of Tulay and the native villages of Bus-Bus and San Raymundo.

Zamboanga is indebted to the favor extended by the insular Legislature of including the municipalities of this department, on the same basis as those of the northern provinces, in the matter of securing financial aid for the installation of municipal potable water supplies. Without this insular aid, somewhat more than 25 per cent of the total cost of the project, it would have been a financial impossibility for the municipality of Zamboanga to undertake at this time or for some years to come the installation of municipal waterworks.

Water supply for many large villages located on low islands or coral reefs in the province of Sulu presents the most difficult problem of this class. There are communities having a population of more than 5,000 persons who are wholly dependent for potable water upon shallow surface wells, which are little more than open cisterns collecting rainfall. In the absence of seasonal rains the people are compelled to go to other islands, sometimes at a distance of 20 or 25 miles, to secure water for drinking and cooking purposes. The improvement of public health in these communities is obviously difficult of accomplishment until the engineers shall have determined upon some feasible method of water supply. These communities, notwithstanding a relatively high mortality rate from disease, have for centuries occupied their present locations, which are peculiarly favorable to the fishing and pearling industries. It may be possible, but is clearly impractical, to undertake to remove them to more sanitary locations. On the larger islands of the Sulu group, on Basilan and on the great island of Mindanao, mountain streams furnish the customary water supply of the people. The water in these streams, except along their lower reaches, is generally good. But in periods of extreme drought many of the streams disappear from the surface, leaving occasional stagnant pools of drinking water, which apparently causes intestinal ailments of more or less serious character.

Not only for the supply of potable water that may be protected from contamination by dangerous water-borne diseases, but also for the extension of the field dispensary system, the public-health service of Mindanao-Sulu requires material financial aid from the insular treasury, since the liberal assignment of 10 per cent of provincial and municipal revenues for the public-health service is inadequate. The extension of this service is extraordinarily important from the standpoint of economic values, reduction of infant mortality and increase in the labor efficiency of adults. This economic consideration is indeed important elsewhere. But here in this de-

partment there exists another and more compelling consideration which places the public health service among the most vitally important functions of government. No public activity seems to our Mohammedans and pagans to be more beneficent than the relief of bodily suffering. The dispensary and hospital service, therefore, becomes of overshadowing importance in popularizing governmental influence among those not yet accustomed to its restrictions. Every peso spent in the extension of the public health service is a peso spent in the extension of de facto government control—is a peso which in the not distant future will be returned manyfold by its present beneficiaries converted into productive, tax-paying citizens of the Philippine Islands.

10. PUBLIC INSTRUCTION.

The number of public schools in Mindanao-Sulu is negligible compared to the need. This is the most serious shortcoming in the undertakings of the present government.

Public instruction is relatively of greater importance as an activity of public service in this region than in the northern provinces, or indeed elsewhere in American territory. The demand for public schools here comes very soon after the establishment of amicable contact with the people by the constabulary or other agency of government. There is noted a feeling of dissatisfaction, claimed by some to be widespread, among our Mohammedans and pagans because of the relatively very limited public-school opportunities afforded them. That the public schools in the territory comprised within the former Moro Province were limited almost wholly to Christian communities and those rather permanent military stations in Mohammedan and pagan territory was due primarily to the uncertainty as to public order, and especially to the lack of funds to meet the expense of teachers and supplies suited to the requirements of the modern public-school system of the government in these islands. Practically without exception teachers had to be brought from the United States and the northern provinces. At most military stations American soldiers were detailed for special duty to organize and give instruction in public schools. Every other effort within the resources of the military and civil authorities was devoted to public-school work, but so meager were these resources, compared with the demands of the population scattered over so great a territory, that no impress was made comparable with the accomplishments in public-school work in Luzon and the Visayas.

So eager have been and are the people of Mindanao-Sulu for public-school facilities for their children that ordinarily building materials and other articles of local product, together with labor for clearing of ground, construction of buildings, etc., are offered voluntarily by the people without urging. A noteworthy case of this character is the boarding school for boys at Kudarangan, Cotabato, where Datu Piang has not only provided land, a portion of the materials, and expense of construction of substantial buildings, but also for considerable periods supplied without charge the food for the boarding pupils.

Administrative control and direction of public schools in Agusan and Bukidnon have continued as heretofore under the jurisdiction of the director of the insular bureau of education.

In the organization of the Moro Province the public schools throughout that territory were under a superintendent of schools who reported to the provincial governor and was practically independent of the insular bureau. This plan was continued upon the reorganization of the Moro Province as the department of Mindanao and Sulu when the provincial superintendent of schools became department superintendent. Accordingly the five districts, now provinces, of Cotabato, Davao, Lanao, Sulu, and Zamboanga have continued during the year practically independent of the insular bureau of education.

In 1914 financial aid from the insular treasury was given for the first time to public schools in that part of Mindanao-Sulu which was included in the former Moro Province, the sum of ₱204,523 appropriated by the Philippine Commission being devoted to this purpose.

A definite program was outlined at the beginning of the year for our public schools, both as to extension of the existing organization and the character of instruction to be given.

The policy was definitely established that all available resources should be devoted to the extension of primary schools and the development of a normal school for the training of teachers by a course of instruction especially adapted to the requirements of primary schools appropriate to the needs of the people of Mindanao-Sulu. The needs of primary schools of Mindanao-Sulu were deemed to be almost wholly vocational and essentially limited to agriculture and, in the case of coast villages, to the development of marine resources not only as concerns food fishes, but also the cultivation, as well as the fishing, of shells, sponges, and other marine products, and their preparation for marketing most advantageously. To a limited degree wood and iron working beyond the elementary forms essential in the training of the ordinary small farmer and fisherman will form part of the course, but will be given only in the larger towns where there are shops requiring skilled workmen. Mat making, brass working, and other industries of a household or individual workman type as distinguished from shop work, form a secondary but important factor in the scheme of primary-school work. Agricultural or, as they are termed, "farm" schools are definitely planned and form an important part of the program for school work in the larger communities. They provide instruction in agriculture somewhat more advanced than that given in the ordinary primary schools. Graduates of these farm schools should be capable of performing at once the duties of superintendents of small plantations or assistants to the superintendents of the larger plantations. With practical experience and training, they should be able to fill the higher positions. No experimental work is undertaken in the schools. The experience and excellent results obtained by the bureau of education in the northern provinces, where the program of instruction has been vocational in elementary agricultural and household industries, serve as the basis of our public-school undertaking in Mindanao-Sulu.

The year covered by this report has been devoted to the reorganization of existing schools and the establishment of new schools. No effort has been spared gradually to bring the existing organization into harmony with the methods and practices followed by the insular bureau of education. Progress in this latter regard has been such that it seemed opportune to recommend to the Governor General the extension of the jurisdiction of the bureau of education to the entire department of Mindanao and Sulu, and this became effective January 1, 1915, by virtue of the Governor General's executive order of December 1, 1914.

The total appropriations for public schools for 1914 in the provinces of Cotabato, Davao, Lanao, Sulu, and Zamboanga were ₱270,000, of which ₱20,000 was for the construction of school buildings. During the year 1914 the number of school-teachers was increased from 125 to 239. Of these 15 were Americans and 216 natives, of whom 200 were Christians and 16 Mohammedans. One hundred and seven teachers were appointed from the northern provinces during the year. There were, at the close of 1914, 101 organized public schools, of which 1 is classed as secondary, 2 intermediates, and 98 primary; the secondary and intermediate organizations have not been increased during the year. The appropriation for 1915 provides for 40 additional teachers and 20 additional primary schools.

Athletics form an essential part of the school programs. The various athletic exercises and contests and group games as developed and conducted by the insular bureau of education have been introduced in the schools of Mindanao-Sulu with marked success.

To provide for the training of selected individuals to become teachers, and in some instances for the education of boys selected for other reasons, 28 scholarships were created providing for that number of Mohammedan boys as resident students in Zamboanga, where they are under the immediate observation and influence of department officers and have the advantage of the best educational facilities in the department.

Through the courtesy of the bureau of education six scholarships in the School of Household Industries in Manila were made available for girls from Mindanao-Sulu. Two young men, Mohammedans, have been appointed to the Training School for Nurses in Manila. Two scholarships also are maintained from the department at the College of Agriculture at Los Baños and one at the Philippine School of Arts and Trades of Manila. Arrangements are practically concluded to send two young women (Mohammedans) to the Philippine General Hospital Training School for Nurses in Manila and at least one young man (Mohammedan) to the School of Commerce in Manila for 1915. In the latter part of 1914 arrangement was made to send two young Mohammedan women, one being Putli Tarhata, a niece of the Sultan of Sulu, to reside at Normal Hall, Manila, and receive special public-school training in domestic science and other appropriate branches.

The following tables show the annual enrollment by grades for the seven school years from 1907 to 1914, the number of schools in operation, the number of teachers, attendance, and enrollment

since 1903 for the provinces of Cotabato, Davao, Lanao, Sulu, and Zamboanga:

TABLE No. 1.—*Annual enrollment by grades for the seven school years from 1907-8 to 1913-14.*

School year.	Primary.				Intermediate.			Sec- ond- ary.	Un- classi- fied.	Total.
	I	II	III	IV	V	VI	VII	First.		
1907-8.....	3,345	482	281	84	23	19	8	.....	292	4,894
1908-9.....	3,449	882	424	116	28	17	12	.....	114	5,042
1909-10.....	3,365	833	414	198	52	18	21	11	34	4,946
1910-11.....	3,596	792	353	229	48	21	11	5	247	5,302
1911-12.....	4,327	1,187	494	251	36	22	17	.....	93	6,427
1912-13.....	5,294	1,111	554	303	58	20	18	.....	210	7,568
1913-14.....	5,932	1,335	658	420	124	39	20	12	75	8,615

TABLE No. 2.—*Number of schools in operation, number of teachers, attendance, and enrollment since 1903.*

School year.	Number of schools in opera- tion.	Number of teach- ers.	Attend- ance.	Enroll- ment.
1903-4.....	49	69	1,582	2,114
1904-5.....	53	89	2,033	3,617
1905-6.....	57	94	2,021	4,235
1906-7.....	58	86	2,342	5,140
1907-8.....	60	86	2,675	4,662
1908-9.....	57	96	2,900	4,896
1909-10.....	57	93	2,791	4,854
1910-11.....	54	93	3,013	5,042
1911-12.....	60	99	3,807	6,427
1912-13.....	72	116	4,536	7,568
1913-14.....	80	125	5,396	8,615
October, 1914.....	97	217	6,423	9,437

Through the courtesy of the director of education the following data are available regarding public schools in the provinces of Agusan and Bukidnon, which, as heretofore stated, are not under the supervision of the department superintendent of schools but administered, as for many years past, directly by the central office of the bureau of education: Total number of schools, 56, of which 53 are primary schools, 2 agricultural, intermediate, or farm schools, and 1 regular intermediate; number of teachers, 94, of whom 5 are Americans and 89 natives; total enrollment, 5,363, of whom 3,420 are boys and 1,943 girls.

There are, therefore, 153 schools, 311 teachers, and 14,800 enrolled pupils in the public schools of the seven provinces comprised within the department.

It is impossible to exaggerate the credit due the supervising and teaching forces, both American and Filipino, for the fearless self-sacrifice which has uniformly distinguished their work in the organization and conduct of the public schools in this department. Filipino teachers from Luzon and the Visayas have accepted appointments and organized and conducted schools in many instances at points remote from the protection of constabulary or other armed forces of government. Notwithstanding the traditional fear they

are supposed to have of the Moro, these Christian Filipino teachers have gone about their work without any assurance of immediate protection, unable at the beginning to speak the local dialect, in most instances without frequent or certain mail communication, and often without food supply except the more or less strange dietary of the locality. In no instance has a teacher been molested by the people. Very few have given up their work, and in those cases none, so far as can be ascertained, because of fear as to personal safety, but because of inability to adapt themselves to the utter loneliness of some of the more remote places or the lack of customary food or because of homesickness that could not be overcome. Considered in the light of experience in providing American teachers for schools in the more remote communities in Luzon and the Visayas in the years immediately following the organization of the bureau of education, the results of the past year in the establishment of Filipino teachers in public schools throughout pagan and Mohammedan territory in Mindanao-Sulu have been a distinct success.

PRIVATE SCHOOLS.

There have been in operation during the year 30 mission or parochial schools conducted by Jesuit missionaries under the direction of the bishop of Zamboanga. These schools are located in Christian and pagan communities on the island of Mindanao. Instruction is given to boys and girls in separate schools along relatively the same lines of education as in the parochial schools in the United States, the course of instruction not going above the primary grades. No effort seems to be spared by the bishop of Zamboanga to provide English-speaking teachers for these schools and to bring them as nearly as may be to the same standards of instruction as the public schools. Teaching sisters of the Company of Mary maintain boarding schools for girls at Zamboanga and at each of the mission points where girls' schools are maintained. The teaching personnel, including clergy, is stated at 16 Europeans (Spaniards), 31 sisters of the Company of Mary, 23 male and 5 female native teachers. The total enrollment in the Roman Catholic schools within the department is 2,178 boys and 1,864 girls. The enrollment of pupils in these schools is as follows: Province of Agusan, 390; Cotabato, 109; Davao, 1,210; Lanao, 190; Zamboanga, 2,143; a total of 4,042 pupils enrolled.

Under the direction of Bishop Brent, of the Episcopal Church, there have been maintained by private philanthropy various institutional undertakings. During a portion of 1914 educational work has been conducted among Mohammedan women and children at Kawa-Kawa, Zamboanga, of the character of a social settlement activity, including instruction in housekeeping, hygiene, sanitation, etc. At Jolo (Tulay) Mohammedan girls have been given rather more extensive instruction during a part of the year by American ladies under the direction of Mrs. Lorillard Spencer, of New York City.

At Tetuan, Zamboanga, a boarding school for girls and day school for boys and girls have been maintained during the year by private mission philanthropy under the direction of the Rev. D. O. Lund

and wife. Day schools have also been maintained under their direction at Lamitan, Taluksangay, and Margosatubig, while a night class was conducted at Zamboanga. These schools have a total enrollment of 87 boys and 123 girls.

Private instruction either of individual pupils or in classes is given to a very limited extent in Zamboanga and some of the other Christian communities. The aggregate of these, however, is considerable, and there are not at hand data as to the number of persons engaged in this work nor the number of pupils so receiving instruction.

In most of the Mohammedan communities there exist what are termed "pandita schools." These are schools conducted by men, generally more or less learned Mohammedans, called "panditas," who are distinguished in the communities in which they live by reason of some knowledge of the Koran, writings by commentators thereon, and other books deemed sacred or authoritative by Mohammedans. These panditas also are generally persons credited with ability to read the Arabic version of the Koran. The instruction given by them relates to the forms and principles of the Mohammedan religion as practiced in Mindanao-Sulu, reading the Koran, reading and writing the local dialect in a modified Arabic script, and some elementary principles of arithmetic. Some of these teachers have a decided inclination to mysticism and a pretense to magic.

In the seven provinces constituting the department the estimated number of children of school age (7 to 14 years) is 126,217. Of these, 14,800 are enrolled in public schools and 4,252 in organized private schools. The number of individuals receiving instruction from independent private teachers in any degree comparable with that of the public schools is negligible. The instruction received by children in the pandita schools must be considered valueless from the standpoint of the government.

It appears that there are more than 107,000 children of school age not enrolled in the organized schools of the government or those of private enterprise of worth. Those children not now receiving instruction in accordance with modern ideas are either living at remote points where no schools exist or are in excess of the number which the existing local school facilities can care for. The greater part of these children in need of schools live in or may be brought into communities constituting appropriate primary school groups of 25 children or more. Without schools they are growing up handicapped by the lack of intellectual development, and by the superstitions and other burdens of ignorance which hold their fathers 300 years behind their fellow citizens of the northern provinces and the civilized or Christian communities oftentimes in the immediate vicinity of their own.

In accordance with the program of unification of public services in Mindanao-Sulu with the corresponding branches of the government in the remainder of the Archipelago the public schools here came, as hereinbefore stated, under the jurisdiction of the insular bureau of education beginning January 1, 1915. The department governor is indebted to the director of education for invariable cooperation, and especially most liberal assistance in the supply of supervisory personnel and teachers.

11. PRISONS.

The prison system of the Moro Province, which passed to the department government, was one of correction and education rather than punitive. The department prison at San Ramon well merits classification as an educational center rather than as a penitentiary. Another fact making this unique among prisons under American direction is that most (79.87 per cent) of its nearly 500 inmates are Mohammedans and pagans. The inmates of this institution present a problem radically different not only from American prisoners, but from the Christian Filipinos, who constitute the predominant element in the great prison of Bilibid at Manila and other penal establishments in Luzon and the Visayas. Furthermore, the plan of work at San Ramon Prison makes agriculture the chief occupation of the prisoners. The administration of the prison during the year, both from the standpoint of reform and moral betterment of the prisoners and from that of economic results, has been most gratifying.

The number of prisoners at San Ramon on December 31, 1914, was 472, of whom 467 were serving sentences and 5 were in detention awaiting final determination of their cases by the courts.

Racially the prisoners comprise 4 Caucasians (Americans), 3 Negroes (Afro-Americans), 5 Chinese, 1 Japanese, and 459 natives of the islands. Of the native prisoners 82 are classed as Christian Filipinos, 349 are Mohammedans, and 28 pagans.

Sixty-seven prisoners are serving sentences of life imprisonment, 10 sentences of 20 years' imprisonment or more, 94 sentences of from 10 to 20 years' imprisonment, 107 sentences of from 5 to 10 years' imprisonment, and the remainder sentences of less than 5 years' imprisonment.

There are serving sentences for murder or homicide, robbery, and outlawry 387 persons, of whom 164 were convicted of robbery alone or in connection with the charge of murder. Of these 73 were cases specified as cattle stealing, 15 are charged with crimes against chastity, 5 are charged with violation of the opium law, while the few remaining cases are violations of the firearms law and minor offenses.

There are no women prisoners serving sentences at San Ramon, all such, if insular prisoners, being transferred to Bilibid immediately upon sentence by the court of first instance; or, if provincial prisoners, they are held in the jails at the provincial capital where sentenced.

DISCIPLINARY CONTROL.

A noteworthy feature of prison management during the year has been the development of the "trusty" or honor class of prisoners to the remarkable degree of 62 per cent of the entire number of prisoners confined, the classification of prisoners from the standpoint of disciplinary control on December 31, 1914, being: Trusties, 294; first class, 36; second class, 127; third class, 10; detention, 5.

There escaped during the year 16 trusties and 12 "stripers." By December 31, 18 had been recaptured or killed. Some unfounded alarm was occasioned in connection with the movements of certain of the escaped prisoners who had killed their guard while at work on

the plantation. This incident is given, under the title of "Public order."

As already stated, on February 3, 1914, a civil prison guard, almost entirely recruited from honorably discharged noncommissioned officers and privates of Philippine Scouts and Philippine Constabulary, relieved the military guard previously on duty at San Ramon. The authorized strength of the guard is 1 first sergeant, 1 provost sergeant, 3 duty sergeants, 6 corporals, and 70 privates. By the development of the trusty system and the assumption of the duties of commander of the guard by the superintendent a reduction in the guard has been effected representing a saving of ₱13,563.60 out of a total estimated cost of ₱30,423.60.

During the year there have been concluded the construction of waterworks, guard's quarters, temporary residence of the commander of the guard, quarters for the assistant superintendent, copra drier and granary, 3 kilometers of first-class road, 2 kilometers of second-class road, and 3 small bridges, at a stated cost of ₱15,650.70. Other betterments which have been completed, but without purchase of outside material or hire of labor other than the regular personnel of the prison, have been a poultry barn, stable for brood mares, seed and tool house, and extensive fencing, grading, etc.

A most noteworthy feature of the San Ramon prison is the fact that all prisoners are employed in productive labor. All who are physically capable work at farming and gardening, and those not physically able for such employment are engaged in hand laundry work, plain tailoring, mat making, or necessary kitchen work, sanitation of prison buildings and grounds, and other required general-service work. In this manner not only are all prisoners engaged in productive labor, but their employment is limited to the sort of work in which a training will be of the greatest value to them upon their return to their homes, whether these be in the mountains or in the most remote fishing villages.

The health conditions in the prison have been excellent throughout the year. A trained male nurse has been in immediate charge of the prison dispensary and hospital and under periodical inspection by the provincial health officer from Zamboanga, who has also answered emergency calls for medical or surgical aid which the nurse ought not to undertake to render.

During the year but one prisoner died from disease and one from accidental injury, crushed by a falling tree.

During the year by prison labor 150 hectares of forest and brush land were cleared and the greater portion of this planted in corn. Five thousand bushels of corn have been harvested and 10,000 bushels (estimated) are in field ready to harvest within one month. Nine thousand seedling coconut trees have been set out during the year and 5,000 more are in seed beds sprouted and ready to be planted. Large quantities of pineapples, bananas, and papayas have been planted during the year, and especial attention has been given to the growing of vegetables and fruits primarily for the subsistence of prisoners, the surplus being sold in Zamboanga. The prison garden is nearly 15 hectares in extent.

The main feature of farm development at San Ramon for many years has been the coconut plantation, which now comprises about

25,000 trees. It is estimated that the farm property, 1,084.5 hectares in extent, includes suitable land for approximately 100,000 coconut trees.

FINANCE.

The expense of San Ramon penal farm and prison for the fiscal year 1914 was ₱67,007.57 for current expense and ₱15,650.70 for permanent improvements. The per capita daily cost for subsistence of prisoners at San Ramon during the year was ₱0.1444—a total of 175,548 rations, for which ₱25,346.59 was paid. Of this sum ₱7,472.76 was a credit to the farm for products sold on its account to the prison. The stated charge against the farm to the credit of the prison for labor was ₱25,582.72.

The net cost to the government for guarding and maintenance of prisoners was ₱71,090.42 per annum. This does not include any allowance for deterioration of buildings and plant and similar charges that would form part of a complete account, but does include all expenditures actually made during the year on account of current expenses, and takes into account receipts of the San Ramon penal farm and prison.

The San Ramon establishment prior to American occupation had been administered by the Spanish Government as a penal colony. The property was transferred without charge by the insular government to the government of the Moro Province May 26, 1911, and for a time operated by the latter as an agricultural experiment station, stock farm, etc. Later the provincial prison was transferred from Calarian (about 3 miles from Zamboanga) to San Ramon, and the present establishment known as the San Ramon penal farm and prison was organized and developed. Upon the reorganization of the Moro Province as the department of Mindanao and Sulu the San Ramon establishment came over to the latter, together with other activities of the former. By section 12 of Act No. 2408 (the organic act for the department of Mindanao and Sulu), enacted July 23, 1914, there was created the office of superintendent of reformatories, who, under the supervision of the director of prisons, should have the direction and control of the prison and penal farm at San Ramon and of all prisons and prisoners within the department. However, for the orderly procedure in the extension of the control of the director of the insular bureau of prisons to the penal establishments located in Mindanao-Sulu, it was provided that the powers and the duties of the director of prisons in the department should be vested temporarily in the department governor until such time as the Governor General by executive order might authorize the director of prisons to exercise his powers and perform his duties in the department of Mindanao and Sulu or any part or parts thereof. In pursuance of the policy of the Governor General to bring all the territory of the department as quickly as might be, with due advantage to the public interest, within the jurisdiction of the various insular bureaus upon the same basis as the regularly organized provinces of the Archipelago, the necessary preparations were made during the year, and it was recommended that the jurisdiction of the director of prisons be extended to all the territory of the department effective January 1, 1915. Accordingly, on November 23, 1914,

the Governor General issued the executive order contemplated by the organic act, and at midnight, December 31, 1914, the jurisdiction of the department governor over the San Ramon penal farm and prison terminated and that of the director of prisons began. The authority of the director of prisons over all civil prisons and prisoners within the department of Mindanao and Sulu is therefore now identical with that exercised by him in the regularly organized provinces of the Archipelago.

Provincial and municipal prisons are maintained as in the other provinces of the Archipelago. They are as a rule reasonably adequate and in good condition. Efficient safeguards prevent abuses both as to irregularities in the periods of confinement of individuals and as to treatment of prisoners.

12. PUBLIC WORKS.

Good roads and trails, potable water supplies, port improvements and landing facilities, construction of telephone lines, removal of obstacles to navigation of rivers, maintenance and construction of public buildings, which constitute public-works activities within the jurisdiction and responsibility of the department government, have received attention during 1914 as public-service activities of the first order.

Up to the close of the year 1913 public works in the territory now comprised in the provinces of Agusan and Bukidnon had been carried on by provincial officers under the direction of the secretary of the interior. Public works in the Moro Province had also been carried on independently of the insular bureau of public works. Much excellent work had been done under these systems in all these provinces. Indeed, considering the extremely small amount of funds expended the results obtained are remarkable. Important factors in securing these results have been the voluntary labor and donation of supplies of local product by the people in Agusan, Bukidnon, and some portions of the former Moro Province; and of especial importance was the work of the Army, both by troops and by civilian employees, in all lines of public-works undertakings.

For the year 1914 it seemed wise to continue in force the plan of independent control by the department governor as successor to the secretary of the interior over Agusan and Bukidnon, and to the governor of the Moro Province as concerned the remainder of the department. Definite steps were taken, however, looking to the reorganization of public-works methods and personnel in order that without avoidable delay the general policy of unification with the remainder of the Archipelago might be carried out by the extension to the seven provinces of this department of the jurisdiction of the insular bureau of public works. This preliminary work has been concluded and the jurisdiction of the bureau extended to Mindanao-Sulu, effective January 1, 1915. Acknowledgment is here made of the fullest cooperation and material assistance given by the director of public works to the department government.

In the course of the year the organization for the dispatch of matters falling under the head of public works was a senior supervising engineer in charge, and provincial or district engineers, so

far as possible to provide them for the various provinces, the provincial governors or secretaries acting as district engineers pending the assignment of regular appointees.

The total expenditure of public funds under the control of the department government and its subordinate units for public works during the year 1914 was ₱363,596.92.

Of this amount the sum of ₱103,356.87 was appropriated by the Philippine Commission from the insular treasury and the balance derived from current local revenues or unexpended balances remaining from previous years. This expenditure on account of public works for 1914 was distributed as follows: Office of the department (senior supervising) engineer, technical assistants, etc., ₱26,849.96; maintenance of roads and bridges, ₱68,791.17; construction of roads and bridges, ₱82,383.81; maintenance of buildings, ₱31,952.27; construction of buildings, ₱74,099.56; construction of wharves and other port improvements, ₱25,297.36; miscellaneous construction and maintenance, ₱54,222.79.

There are no roads in Mindanao-Sulu which fill the requirements of the bureau of public works' classification as to first-class construction. There are approximately 90 kilometers of second-class roads, 199 kilometers of third-class roads, and 2,400 kilometers of well-defined trails on which more or less work has been done. The foregoing is, of course, a statement of existing improvements, the construction of which extends over previous years, in some instances antedating American occupation. There is a relatively heavy traffic over all improved roads, and the use of automobiles and heavy trucks for freight traffic is rapidly increasing. On the island of Sulu there were not five privately owned wheeled vehicles at the beginning of the year. With the reopening of roads which have been constructed by the Army some years ago, their improvement to approximately first-class type of construction, and the assurance of continued road extensions, the use of automobiles for the carrying of both passengers and freight has come rapidly into practice and popular acceptance. It seems probable that on this island the road traffic will continue to be almost exclusively by automobiles and motor trucks.

Local revenues available for road maintenance and construction are at present and will for years continue to be wholly inadequate to meet the expense of maintenance of the roads which, it is hoped, will be completed before the end of the year 1915. Further extension of the road system is, in the first place, essential to the maintenance of public order, and is, in the second place, almost a *sine qua non* to the agricultural development of all interior regions. It presents a problem of public finance the solution of which should be sought without delay.

While no single project of great magnitude may be mentioned as a public-works result for the year 1914, yet there have been accomplished during this period a very great amount of small construction projects, both of betterments of existing buildings, docks, roads, bridges, etc., and construction of new work as well as the conclusion of investigations of urgent projects of diverse characters.

Of especial value have been the results obtained by the senior supervising engineer in the systematizing of methods and reorganization generally of personnel and practice on bases uniform with

those of the bureau of public works in the northern provinces where through the application of the lessons of many years' experience such excellent results are being had in determination of construction types and methods and especially in the construction and maintenance of roads.

An important result of the year has been the conclusion of the preliminary arrangements for the orderly and advantageous transition of control to the bureau of public works, thus accomplishing another definite step forward in the carrying out of the program of the central government regarding Mindanao-Sulu.

13. AGRICULTURE.

The record of agriculture in Lanao Province during 1914 has been one of unequalled activity and prosperity. The acreage of palay land cultivated has increased at least 40 per cent, and a considerable surplus of palay (uncleaned rice) has been exported. Elsewhere throughout Mindanao-Sulu 1914 has brought a multiplicity of discouragements to the agriculturalist. A general drought has prevailed during the year.

In several provinces on the island of Mindanao the locust plague has caused repeated destruction of food crops. Because of the closing of customary markets and great reduction in the number of commercial vessels engaged in carrying the foreign trade, copra and abaca (Manila hemp), our most important and lucrative agricultural products, have been salable only occasionally, and this at prices materially lower than those which have obtained during recent years. Although such incidents, excepting those attributable to the war, are recognized by every one as liable to attend the pursuit of agriculture, they have nevertheless occasioned severe losses generally to the agricultural class. Not only has the income for the year suffered, but, in the case of abaca and young coconut plantations, drought and consequent grass and jungle fires have in some instances inflicted considerable losses upon capital investment. Yet faith in the unsurpassed fertility of the soil and confidence in the return of abundant seasonal rains are resulting in apparently greater activity in the extension of clearings for new plantations, as well as the plowing of areas heretofore cultivated, all in preparation for the planting of palay and quick-maturing food crops, as well as permanent economic plants and trees as soon as the expected rains come. The drought has even been an advantage in giving an impetus to irrigation projects.

Thus far the government has given but inconsiderable aid to agriculture in Mindanao-Sulu. Whatever has been accomplished in the development of the great potential agricultural wealth of this region appears to have been due to the unguided and often ill-advised action of private initiative. The greater part of our copra and abaca and practically all our rice and other food crops are produced by native planters, who, due to the lack of scientific aids or the impress of helpful advice and direction, secure but a fraction of the reward which should be theirs for even the meager amount of labor expended in the cultivation of so fertile a soil under generally favorable climatic conditions. American and foreign planters,

generally inexperienced in tropical agriculture and without soil surveys or other dependable guidance from applied agricultural science, have wasted valuable years of effort and relatively much capital in impossible undertakings. They have endeavored to grow abaca in localities of periodical or uncertain rainfall, and have established abaca or other plantations on soil wholly unfitted for the particular enterprise, though probably well adapted to other lines of agricultural endeavor. After the waste, or at least avoidable expenditure of much money, empirical knowledge is accumulated from which it is known that in certain places this or that form of agriculture will or will not succeed.

Heretofore the territory of the former Moro Province was not included within the jurisdiction of the insular bureau of agriculture. In order that there might be available to this territory such benefits and assistance as that bureau could offer in this most important industrial activity in the Archipelago, the Philippine Commission, by Act No. 2417, extended the jurisdiction of that insular bureau to all Mindanao-Sulu. Incidentally it should be mentioned that this is another step taken in the fulfillment of the program of unification of this territory with the remainder of the Archipelago.

Available data as to areas actually devoted to agriculture in the department are of such doubtful approximation to accuracy as to be deemed unworthy of official record. The typical agricultural products of Mindanao-Sulu are copra, abaca, and, in a small way, rubber, for export; rice, corn, tapioca, sugar, and tobacco, insufficient to meet the demands for these products within the department; coffee, in northern Mindanao, from which a small surplus is shipped to Luzon and the Visayas. No new fruit or vegetable of recent introduction has been added to the list of those generally cultivated either for local consumption, export, or shipment to other portions of the Archipelago.

Due to the fact that the copra and rice production for 1913 was greater than that of any previous year for which data are of record, and to the fact that the 1913 crop was moved to its markets in great part during the first month of 1914, local partial statistics of shipments during the year 1914 are misleading as to production for this last-mentioned year.

Dense swarms of locusts have persisted during the greater part of the year, descending upon cultivated areas from their breeding places in the sparsely or wholly uninhabited regions of extensive grassy plains and hillsides. A tremendous amount of work has been done by the constabulary and the people under the direction of provincial and municipal officials in combating and endeavoring to eradicate the locust plague. Without assistance of any agency provided by science and by physical force alone the task of eradicating the locust plague may be a possible one in densely inhabited localities far from the menace of great cogonales or wild grass areas. But here such effort is of little avail except it be directed so as to encourage and maintain the morale of the more ignorant type of agriculturists. Until scientific research shall have found an effective parasite or other remedy for the locust plague, or until the extensive breeding places of locusts shall have been reforested or brought under actual cultivation, the locust pest must in fact be

accepted by the agriculturist under exposed conditions such as obtain in Mindanao much the same as the agriculturist in the typhoon belt is compelled to accept the havoc wrought by those destructive storms as an inevitable incident of his undertakings.

The bud rot of the coconut palm reported in Luzon has fortunately not appeared in Mindanao-Sulu except in some rare and doubtful cases. The beetle and other pests attacking coconut plantations have as yet done comparatively little damage, and that in very restricted localities in this department. The law contemplating the eradication of the beetle has not been enforced vigorously during the year for the reason that it has seemed more profitable to undertake this radical endeavor only after a reasonable period of propaganda for the generalization of information as to the simple facts of causes, results, and prevention. In this way a compelling popular opinion may be created which will render practicable of accomplishment the thorough cleaning of coconut groves and vicinities and their maintenance in that condition, all of which is essential to the eradication or, at least, effective control of the pest.

Irrigation on a relatively considerable scale from rivers and smaller mountain streams is practicable on the island of Mindanao and some of the smaller islands. Due to the infrequency of severe drought, the necessity for irrigation has rarely impressed itself upon any of the agricultural communities here or even upon the individual planter or small farmer. Within the municipal jurisdiction of Zamboanga, where perhaps occurs the minimum rainfall within the department, and in a very few other localities, gravity irrigation from adjacent small rivers is practiced in a crude way and to a very limited degree. Water control by both irrigation and drainage is so essential a factor for successful agriculture, especially in these regions of torrential rains and periodical or occasional drought, that the obvious duty of government is to promote knowledge of both these procedures and encourage their practice. The farm schools which are being established and planned as the general type of public school in Mindanao-Sulu recognize the importance of irrigation and drainage, and will give instruction in their application. As soon as an engineer can be assigned especially to irrigation work in the province of Davao—and this is assured for the near future—his first work will be to make reconnaissance and lay out canal and ditch lines for the native and other planters in the abaca districts of Davao. Preliminary work has already been done toward the installation of small irrigation systems in some of the Cotabato agricultural colonies. Settlers coming in from the northern provinces are directed, so far as possible, to locations susceptible of irrigation by the utilization merely of their own labor, materials of local produce, and the advice which will be given them by government engineers.

In order to effect the more rapid development of the great areas of fertile land available here for agriculture, and especially to assure the orderly location of holdings and the systematic direction of effort under the advice and supervision of as capable superintendence as the government can command at this time, persons desirous of coming from the northern provinces to engage in agriculture in Mindanao-Sulu are offered material advantages, provided they come under a

five years' agreement with the government as members of the agricultural colonies, which are discussed under the corresponding title elsewhere in this report. This undertaking, while fraught with all the contingencies and dangers incident to pioneer agriculture on the frontiers of civilization, seems to be the only practical method of bringing into production quickly and effectively these great unexploited agricultural regions of the public domain and at the same time affording material relief to those portions of Luzon and the Visayas where extreme density of population and exhausted fertility of soil cause near-famine conditions frequently to occur.

Communicable diseases of cattle have not caused serious loss anywhere in Mindanao-Sulu during the year 1914. Instances of what appeared to be rinderpest occurred in a few localities but, due to prompt action by the local authorities and the people, it failed to spread, and no large number of deaths resulted. The incomplete scientific knowledge of these diseases and failure as yet to isolate the microorganism distinctive of rinderpest render obviously doubtful the clinical diagnosis upon which reliance must be made in reporting appearance of the disease. Furthermore, the failure of scientists thus far to offer either a curative remedy or prophylaxis, other than segregation, without certainty as to the parts played by small animals, insects, stagnant and running water, renders the situation not only unsatisfactory but extremely discouraging whenever the disease seems to occur. Undoubtedly great unjustified waste is occasioned by the extreme form of quarantine in which field work, as well as movement of harvested crops, is wholly prohibited and the feeding and watering of each individual animal required. In the case of a large herd of semiwild cattle during the dry season or period of drought, in which the disease frequently appears of a vigorous malignant type, the material impossibility of the latter requirement is obvious. The method followed in Cotabato Province upon the occurrence among cattle of sickness having the symptoms accredited to rinderpest was premised and carried through upon a basis of individual segregation and management of cattle in accordance with the simple fundamental facts which constitute all the knowledge available at the present time and which are as easily comprehended and applied by the field laborer as by the most erudite scientist. From the destructive effects of this disease agriculture and cattle raising here, as elsewhere in the Archipelago, are now beginning to rehabilitate themselves through the natural increase of the remnant of their herds left from the havoc wrought by the pest some years ago. Nevertheless the cattle owners and agriculturists of Mindanao-Sulu, like those of the entire world, await with increasing impatience the discovery, long promised and sometimes announced by scientists, of further facts of practical value in the cure, if not eradication, of rinderpest. At present the sum of human knowledge regarding this malady seems to be found among the intelligent practical cattle owners rather than in the laboratories or symposia of scientists. In the latter, however, must rest the hope of agriculture and cattle raising for eventual deliverance from the great menace of this most destructive of dangerous communicable diseases of cattle.

14. FORESTS.

The forest wealth of the Philippine Islands is principally in Mindanao-Sulu.

There is wealth almost incalculable in the practically unsurveyed hardwood forests of Mindanao. The administration of these forests is the function of the insular bureau of forestry. The department government and its component units are eager to cooperate with that bureau in all undertakings looking to the economic development of this great natural wealth.

At the beginning of the year 1914 there were in operation in the department 11 modern mills engaged in the production of lumber for local consumption, the Manila and Cebu markets, and to an increasing degree for export to China and Europe. Exports to the United States have been inconsiderable and difficult or impossible to segregate, as they have occurred through intermediaries in Manila.

The total timber production of the department during 1913 was 60,556 cubic meters, and, for 1914, 67,125 cubic meters, according to the bureau of forestry within the jurisdiction of which Mindanao-Sulu has been and continues upon the same basis as the remainder of the Archipelago. This stated production for 1913 was 21.85 per cent of the production of the Archipelago, and, for the year 1914, 22.77 per cent. The disparity between production and resources in Luzon and the Visayas as compared with Mindanao-Sulu is due to the fact that the largest mills in the Philippines have been in operation in Luzon and Visayas. The company having the timber concession at Kolambugan, in the province of Lanao, reorganized and greatly increased its available capital about the close of 1913, and now have installed a large modern mill which undoubtedly will increase materially the relative timber production of Mindanao-Sulu. The mill at Lebak, Cotabato, and some of the other mills in southern Mindanao-Sulu had greatly increased, or practically concluded arrangements for greatly increasing, their production capacity by additional modern machinery. However the disturbance of financial affairs throughout this part of the world by reason of the European war caused cancellations of contracts for timber in both foreign and Philippine markets, compelling serious modification of the plans of the various companies for increased output and necessitating in most cases great reduction in operating forces or the complete closing down of the mills.

Other forest products of commercial value are almaciga (gum copal), rattan, dye bark, and wax. The most important of these in recent years has been almaciga. This is the gum or resin known in the American and European markets as gum copal. It is found in the forests partially or wholly beneath the ground in masses which apparently had exuded from trees which later died and decayed. As brought out by the mountain people and bartered to traders it is in coarse pieces of varying size and contains more or less adherent dirt, bark, etc. In this state it is sacked and exported. The customary market has been Singapore, where it is understood to undergo some mechanical cleaning and to be packed in secure containers for shipment to the European markets. In these latter the supply for the American industries and manufactures is secured. Some efforts had

previously been made to obtain a direct trade with America in this product, but without definite success. One of the most immediate results here of the European war was the complete closing of our almaciga market by the suspension of shipping between Zamboanga and Singapore and the lack of demand after the resumption of the carrying trade. Renewed and determined efforts are being made to induce American importers and manufacturers to buy our gum copal direct from merchants here engaged in the export-import trade instead of purchasing it through the European dealer and the Chinese-Singapore merchant. It is impossible to estimate the quantity of almaciga existing in the forests of Mindanao-Sulu, but the output had steadily increased during recent years, and there was no indication of exhaustion of supply in any district. The greater portion of the forests have not been worked over in search of almaciga.

The production of dye bark, rattan, and wax is small, and these products in recent years have been but of minor importance. The first two mentioned are obtainable in almost unlimited quantities, and undoubtedly will become of much greater importance upon the development of a better understanding by the people as to methods of preparation. This is deemed a proper activity of the public schools and will receive attention from them.

There are many other known economic products of the mountain and swamp forests of commercial value, and undoubtedly scientific surveys of the forests would reveal many others. With the present sparse population and extremely limited financial resources, both of government and private enterprise, advance in the exploitation of these resources must be very slow and long delayed.

A typical forest product of assured economic value and beginning commercial demand is the fruit of the biao, which is said to be identical with the candlenut of continental Asia. Known in Mindanao-Sulu as biao and in Luzon and the Visayas as lumbang, it has long been used as the source of an oil valuable both as an illuminant and as a lubricant. Furthermore, the tree is known to be capable of successful propagation and improvement by cultivation in the Philippines. Formerly used only in the most primitive way locally and as an adulterant for coconut oil, it seems now to promise establishment on its own account as a commercial article of demand in the markets of the world, especially as a substitute for linseed oil. It is worthy of mention in this connection that success appears to be rewarding the efforts of the past four years in somewhat extensive experimental plantations of this economic tree by some of the mountain people in Davao under the advice and direction of near-by American planters. These plantations are reported to have flowered, and to be giving promise of their first crop. A further important and most encouraging feature of biao cultivation is that apparently many of the denuded mountain sides are well adapted to plantations of this character, which to a considerable degree may provide reforestation as well as an annual product of commercial value.

The compelling necessity for the early beginning of systematic reforestation of denuded mountain slopes and areas not well suited to agriculture is a problem of the bureau of forestry of the greatest immediate import to agriculture in this region and of equal eventual significance to the forestry branch of the public service. It is

claimed with probable reason that the increasing denuded areas materially affect and tend permanently to disturb the customary seasonal rainfall upon which agriculture now is chiefly dependent, and for many years, if not permanently, must continue to be so. But whatever discussion there may be on that subject, there can be no disputing the fact that streams of former abundant flow throughout the year from sources in the forest-covered hills and mountain slopes have, coincident with the disappearance of these forests, become destructive torrents during periods of heavy rainfall, quickly subsiding to practically dry courses within a few hours or days after the cessation of the rains.

From the standpoint of local government therefore a matter of prime and compelling interest is that of reforestation. Undertakings of this character involving the expenditure of a great amount of labor and funds, if available, for which no immediate material return can be had, are difficult to initiate and exceedingly uncertain of that apparent material success which is essential to continued effort, unless there be given in easily accessible and understandable form all available pertinent information and advice as to its use in the direction of effort which, in so far as can now be seen, must be voluntary and of a cooperative character premised upon popular opinion and enthusiasm, or must be based upon compulsory labor subject to adequate penalties.

The complete deforestation which formerly occurred to a great extent generally wherever timber was taken for commercial purposes has been checked effectively by the supervision of the bureau of forestry over all such activities. The greatest factor in deforestation and most difficult of control is that of the small rice and maize grower, usually a mountaineer living at remote and rather inaccessible points and preferring to avoid contact with more civilized individuals and communities. By girdling and fire he destroys the forest growth on an area sufficient to plant the upland rice or maize which he will need for the subsistence of himself and family. Decayed forest vegetation and the fertilizing elements contained in the ashes of the burned timber give him ordinarily a bounteous harvest, altogether out of proportion to the labor of planting and practically without further cultivation. Within two or three years the persistent wild grasses extend from his previous clearings into the new one and render necessary both plowing and cultivation of planted crops. Practically ignorant of and unaccustomed to these more advanced forms of agriculture, he clears additional forest and moves on the following year. This practice has been going on from time immemorial, and if unchecked will in the course of time cause the denudation of all the mountain ranges, as indeed has occurred on the island of Cebu and other islands. This destruction of forests could undoubtedly be checked by force and the imprisonment of such number as may be necessary of the thousands of persons who seek their food by this form of agriculture. Effectively to stop deforestation in this manner would require police forces far beyond the financial resources of the government. Furthermore such a method would seem to be unworthy and consonant with neither the ideals nor the distinctive policies of the present government of the Archipelago. The people to be controlled and diverted from their present waste-

ful pursuits are either entirely docile or relatively easy to control, provided they are neither deprived of their necessary customary rice or maize and other very simple articles of diet nor too far removed from the customary habitat of themselves and their forefathers. Essentially homogeneous racially with their more civilized neighbors who have fixed permanent locations on land better suited to agriculture, it would seem entirely feasible to relocate and modify the customary life of these people as to afford by pacific and economical government intervention an assured method of checking and permanently terminating the uncontrolled and pernicious destruction of the forests.

Indeed, there are positive proofs of the practicability of such procedure. In Bukidnon and elsewhere in Mindanao considerable numbers of these mountain people, during the latter part of the Spanish régime and since American occupation, have been induced to form villages in near-by valleys and level areas well suited to continued agricultural effort. Thus they either abandon their mountain clearings or plant them to coffee or hemp, which, to a degree at least, results in reforestation. The greatest difficulties in such an undertaking seem to find their only immediate solution in the provision of funds for supervision and with which to furnish work animals and the very simple agricultural implements which at the beginning these people do not know how to make for themselves. In the course of the past two years' experience in organization and administration of the Cotabato colonies there have been extended to the more primitive Mohammedan natives of the locality practically the same material assistance in the form of loans for the purchase of work cattle, plows, etc., and supervisory control as have been afforded by the government to the civilized practical agriculturists brought in under contract from Cebu. While it is, of course, still too soon to have definite results, nothing has occurred thus far to raise serious doubt as to the certainty of eventual success in thus bringing quickly the more primitive elements of our population into permanent location, orderly habits of life, and more intelligent agricultural endeavor. In the agricultural colony at Glan, Cotabato, it will be undertaken in 1915 definitely to locate in the colony on homesteads Bilans from the near-by mountains, as well as Mohammedan native residents from the adjacent lowlands. The Bilan is considered to be probably the most recalcitrant of any of the mountain people with whom we have to deal. The Bukidnon and the Subano are known from past experience to be quite amenable to control similar to that contemplated. Other groups of mountain people are classed as varying as to probable difficulty of management between the groups just mentioned and the Bilans.

To conclude the undertaking of effective prevention of forest destruction there must also be considered the civilized individuals and groups of families who, from accident of location and relatively lesser impress of civilization than their fellows, who generations ago became permanently located in the lowlands, are still destroying the forest as they extend their mountain clearings. These individuals are of course more accessible, and probably may with little difficulty be relocated and controlled by governmental authority as soon as the necessary financial means are available to make the temporary

advances of food, work animals, and implements, without which they can not be brought speedily and effectively into their new activities and environments except at considerable loss not only of time but of physical efficiency and economic value to the state.

15. MINERAL PRODUCTS.

Gold, coal, petroleum, quicksilver, copper, and platinum are known to exist at various points in the department. What appears to be one of the largest available unexploited iron deposits in the world is located on the Pacific coast of the province of Surigao and extends from tide water to the interior perhaps within the adjacent province of Agusan.

Development work, now practically reaching the point of exploitation, is being carried on in a limited way by American and foreign capitalists in some of the placer districts of Agusan and immediately adjoining territory in Surigao. Four companies are thus engaged in Agusan. No other definite work is being done at the present time in the exploitation of the mineral wealth of Mindanao-Sulu. In the absence of both scientific surveys and commercial development, the character and extent of this wealth are as yet unknown. A conservative estimate premised on surface indications, including some study of the geology of the islands, is that this wealth, at least in gold, iron, coal, and petroleum, is considerable, probably relatively great and well deserving of immediate attention by persons qualified and financially prepared to undertake development enterprises on a sufficiently large scale.

16. MARINE PRODUCTS.

The wealth of the seas of Mindanao-Sulu ranks with, rather than after, those of agriculture and forests.

Unexploited marine wealth, to a far greater degree than unexploited agricultural and forest wealth, is constantly producing and wasting so long as it is not given timely diversion into the channels of commerce. Not only in the waters of the Sulu Archipelago, but to the northward, extending to and along the coasts of the great island of Mindanao, all conditions of the sea seem to favor the natural growth of immensely valuable marine wealth of all kinds. Here are found food fishes in abundance of great variety and including those of the choicest quality, pearls and pearl shell, top and turban shell, window shell, tortoise shell, *beche de mer* (trepang), and sponges.

The value of the commercial marine products of this region in recent years has slowly increased, being now, under normal conditions, about two millions of pesos annually. The fluctuations of demand are prejudicial to prices for pearl and pearl shell and have tended to cause whatever downward tendency may have appeared in any of the more recent years in the stated value of our aggregate output of marine products. No product entering into the export trade of Mindanao-Sulu has suffered so severely by reason of the European war, nor faces so certain a prospect of considerable time elapsing before recovery of normal demand and prices, as the pearl and pearl-shell industry.

The department government was fortunate in securing the services of Mr. Alvin Seale of the insular bureau of science who devoted nearly six months of the year 1914 to a comprehensive scientific survey of our economic marine resources. Mr. Seale, during his seven years of service in the study of the marine resources of the Philippine Islands, had already devoted considerable time to the waters of Mindanao-Sulu. His work of the past six months therefore has not only taken the character of a systematic scientific survey but affords the government and all private interests concerned much reliable data which might not have been hoped for from a similar period of work by one not previously familiar with the marine life and conditions of these waters. The Samals and the Bajaus who constitute almost exclusively the population of the small islands from the southern limit of the Philippine Archipelago off the coast of Borneo northward to and along the southern coast of Mindanao, devote themselves entirely to the catching of food fish, trepang, and sea shells of commercial value, rarely if ever combining fishing with agriculture as do the Sulus and Visayans living near the sea coast. The government therefore finds its problem of public instruction among the Samals and Bajaus one involving education for vocations in which agriculture is not naturally included as the principal or even a secondary factor. Furthermore, it is noteworthy in this connection that little if anything has been undertaken by these people—as has been done in Luzon and the Visayas—to develop the cultivation of food fishes in waters controlled by dikes, nor in fact in any way to render more dependable and productive the economic value of their labor.

The government program regarding the development of the marine wealth is peculiarly consonant with its program of public instruction for the inhabitants of these portions of the department, especially the Samals and Bajaus. It includes the better preparation of fish, shell, and trepang, for market, so as to avoid waste from preventable deterioration and secure the disproportionately higher prices for the superior classes of produce; the introduction of practical methods of known established merit in the propagation of shell and trepang under control with resulting greater certainty of continued or periodical realization of commercial values. The trepang and shell gardens of the public schools located on coral atolls and small islands are the analogue of the vegetable gardens and demonstration farms of the schools in those districts and among those elements of our population which naturally depend upon agriculture wholly or in greatest part for subsistence and wealth.

The sponge fisheries of the islands are as yet undeveloped and while no complete investigation and determination of their extent and commercial value have been made it seems certain that material success will reward well-directed enterprise in this line.

Food fishes are so plentiful and easily obtained as to make it seemingly unnecessary for the present, and until the population shall have increased greatly, to undertake fish culture along the seacoast. However, there is to be noted in the interior regions of Mindanao, even in the immediate vicinity of the larger rivers and lakes, a lack of sufficient fish to meet the local requirements, dried or salt fish being imported from the nearest coast points.

Efforts have been made in recent years to plant bass and other game or food fish in the lakes of Lanao Province and, it is believed, in some of the other regions of the interior of Mindanao. Sufficient time has perhaps not elapsed to determine the results of these undertakings.

In the province of Cotabato, where the local supply of food fish from the Rio Grande and extensive swampy lakes along its course was clearly inadequate to meet the requirements of the increased population caused by immigration of colonists, it has been decided to plant carp. The preliminary steps have been taken to secure from Hongkong a quantity of this fish fry and an experienced fish farmer to accompany them and stay for such time as may be necessary to assure the successful beginning of propagation of this highly valuable fish. However criticised by the occidental, they are a generally pleasing and popularly accepted food among orientals.

Canned salmon, sardines, anchovies, and other food fish are imported into the Philippine Islands to an annual value of approximately ₱1,441,470. Equivalents of all these are to be found in abundance and are easily secured in the waters of Mindanao-Sulu. Were the government to encourage private initiative by undertaking a demonstration of commercial canning and other curing of fish from these waters to meet the established Philippine demand for preserved fish, it undoubtedly would be a well-justified and probably a self-supporting enterprise.

17. PUBLIC LANDS.

Practically all the first-class agricultural land remaining in the public domain of the Philippine Islands and available for acquisition under the public-land laws is to be found in Mindanao-Sulu.

No surveys nor data of even approximate accuracy exist as to the total area of this class of land in the department, nor even as to the extent of any of the many large single areas in the various great river valleys and wide plateaus. One may travel directly from north to south or from east to west, on foot or even on horseback, for days together traversing such areas which are obviously capable of irrigation for which an abundance of water would seem to be easily obtainable from near-by rivers. When these practically uninhabited areas are cultivated at all the soil is rarely plowed or more seriously disturbed than by the point of the sharpened stick or jungle knife with which the seed is planted between the grass roots after the grass itself has been cut closely to the ground by these same knives. With even this very primitive method of planting and practically without subsequent cultivation, rice yields a hundredfold under ordinary climatic conditions.

It is possible to make a comprehensive visual survey of the many great areas of land suitable for agriculture which have been denuded of forest, but of the probably no less extensive areas of similar land still covered by virgin forest and dense jungle growth an even less adequate impression may be had until definite surveys shall have been made. Not only flat and rolling land here merits classification as first class for agricultural purposes, but also on the lower slopes of most of the mountain ranges and long-extinct volcanoes the cleared forest makes available a soil, almost miraculous in its response to

cultivation, which can seldom be equaled and never surpassed in fertility and special fitness for the more valuable economic plants and trees of the tropics. Especially that incomparable cordage and textile fiber, abaca (Manila hemp), which seems to flourish nowhere in the world except in the Philippine Islands, produces in no other region of these islands fiber so long and of such great commercial value as that grown on the slopes of the mountains which fringe the western coast of the Gulf of Davao and in some other localities in Mindanao.

No general land survey of the agricultural land in the public domain has been made for the guidance and regulation of homesteaders and other persons desirous of acquiring land under the public-land law. Under the conditions of constant and intensely prolific growth of vegetation and the lack of homeseekers on the public domain in these islands such a survey as made in the central and western States of the Union would doubtless be lost in greatest part and would be for every reason an ill-advised expenditure of public funds. It is, however, imperative that systematic surveys be carried on for the purpose of giving titles to occupants under the free patent and other provisions of our public-land laws, as well as for the purpose of encouraging and guiding the homesteader and assuring the orderly taking up of desirable agricultural public land. Experience clearly demonstrates that leaving the homesteader to haphazard location results in a tremendous waste of valuable public land through the irregular location of homestead and the unreasonable individual advantages sought by the uncontrolled homesteader in his location upon navigable streams in the control of waters far in excess of his own needs for irrigation and in the control of narrow valleys.

The insular bureau of lands has the same degrees of jurisdiction and responsibility in Mindanao-Sulu as in the remainder of the Archipelago. Land-survey parties of the bureau have been working for some time past in the provinces of Cotabato, Davao, and Zamboanga, in the municipality of Jolo, in Sulu Province, and occasionally in other provinces of Mindanao. Preliminary to the establishment of the agricultural colonies in Cotabato a bureau of lands survey party began homestead surveys of the sites selected. Similar survey was made for the American colony at Momungan, in the province of Lanao. Free-patent surveys are being carried on in Davao, Cotabato, Lanao, Zamboanga, and Sulu Provinces. The preliminary steps have been taken for the inauguration of free-patent and homestead surveys in Agusan and Bukidnon Provinces. The free-patent and homestead surveys in Zamboanga have included the village of Lamitan and adjoining site of the projected agricultural colony on the island of Basilan. Cadastral and town-site surveys have been made of the towns of Cotabato, Dansalan, Davao, Dapitan, Dipolog, Jolo, Lubungan, Malabang, Parang, and Zamboanga, as well as several town sites in the colonies and at other points. Surveys by surveyors of the bureau of lands have also been made of the military reservations and private holdings falling within these town-site boundaries.

However, the great undertaking of land surveys has hardly begun. It is a prerequisite to the orderly distribution of the public domain among agricultural proprietors. It is essential to the placing of agriculture upon a basis capable of being financed either by investment or

loan operations, which do not involve a ruinous burden of interest charges, to the redemption of the agricultural proprietor from the exhausting charges of the expense of litigation regarding titles, to the development of public revenue derived from tax on real estate, and constitutes the most effective means of securing speedily all those economic and social benefits which are derived from a consciousness of definite personal ownership of land.

There are not at hand detailed statistical data as to the survey work accomplished in this department during 1914, but it is presumed that such information will be embodied in the annual report of the director of lands. As to the number of applications for homestead and free patent titles during 1914, it appears that there were forwarded during this period to the bureau of lands from Mindanao-Sulu 705 applications for homesteads, of which 17 were definitely approved, the balance awaiting the conclusion of investigation, which includes inspection both by representatives of the bureau of lands and the bureau of forestry; 843 applications for titles under the free patent provision of the public-land act, of which 840 are stated as having been approved. The greatest number of homestead applications were forwarded from Cotabato, Zamboanga, and Davao Provinces; of applications for free patents from Cotabato and Lanao.

Recommendations for legislation on matters falling within the purview of public lands affairs will be found under appropriate title in the final part of this report.

The department government is indebted to the bureau of lands for prompt response to requests for increased survey parties, and especially for the prompt dispatch of many pending matters involving the perfection of private titles under the public-land laws. It is recognized that the inadequate number of surveyors detailed for duty by the bureau in Mindanao-Sulu has been due only to the limited appropriation which the bureau had for use in public-land surveys.

The bureau of lands inspectors, surveyors, and other representatives have worked here during the year under the most difficult conceivable conditions, except that of being subjected to actual personal violence. In Cotabato and Sulu, and to a lesser degree in other provinces, there were at the beginning manifestations of popular opposition on the part of Mohammedan natives to the inauguration or continuation of surveys. On a few occasions there was a display of force, at least in numbers, and an apparent determination to restrict the advance of the surveyors at whatever cost. Even under these most disturbing circumstances chiefs of parties acquitted themselves with great credit, remaining firmly in their positions and determined to continue work, merely suspending the actual surveys temporarily, but not withdrawing. By amicable discussion and patient demonstration of moral force they invariably succeeded in overcoming opposition and in resuming and completing their work without in any case having to their discredit and the embarrassment of government the abandonment of this branch of public service under opposition and duress. These men are deserving of material recognition by the government for the valuable and relatively poorly compensated services they had to perform during the year 1914 and are required to continue to perform in opening up new regions to orderly settlement and agricultural development.

18. AGRICULTURAL COLONIES.

To make its average citizen approximate its ideal type may safely be asserted to be the highest objective good government can have. The popular conception of form of government and the social constitution of the people will determine this type. According to the traditions and political ideals of the American people, which ideals the Filipino people apparently make their own with merely the modification of minor details necessary to adapt the type to their own distinctive inherent characteristics, the ideal citizen is the individual unit which in mass constitutes the great middle class or the "common people." Upon them must rest the stability of a republic—stability of public order and that stability of popular thought and action on all questions of common public interest which may only be had from a conservative intelligent majority of population.

This ideal type of citizen for the Philippines, as for all other countries in which agriculture is not only the base of national wealth, but the chief occupation of the majority of the people, would seem to be the small agricultural proprietor. He should devote his energies to a farm of his exclusive private ownership and should be educated to rather than away from the land. He should be trained to cooperate, not only politically but industrially, with his fellow man. Whether his school opportunities have been limited to those of the local public school, as must be the case of the majority, or whether he has had opportunities for higher education, in any event, so far as government intervention goes, there should be no forcing of ambitions or other inclinations away from the fundamental ideals of personal economic independence and a due understanding of civic duties and responsibilities.

Toward the development of citizens all branches of public service strive and each with right claims its full credit for duties and responsibilities well discharged. However, there is believed to be an opportunity for radical improvement of these public services, as ordinarily organized, by coordinating them with private initiative—perhaps compelling development of an action by the latter in a somewhat unusual way in so far as concerns the more primitive and dependent elements of population. This may be criticized as ambitious and novel, but admitting these characteristics, they certainly may not be deemed sufficient reasons for the rejection of an otherwise sound proposition.

Such coordination of public services and resources with private initiative in the peculiar circumstances of Mindanao and Sulu seems fairly accomplished in the government's undertaking, which is known as the "agricultural colonies."

The agricultural colonies are a branch or activity of public service created by Acts Nos. 2254 and 2280. Their purposes, as stated by these acts, are "to increase the production in these islands of rice and other food cereals which at present are imported in large quantities for local consumption," "to equalize the distribution of population of these islands," "to afford opportunity to colonists to become landed proprietors, and to bring under cultivation extensive wild public lands." Furthermore, these acts provide funds and for the necessary temporary financial assistance of persons desiring to emi-

grate from the more densely populated provinces of Luzon and the Visayas to take up homesteads and engage in agriculture in Mindanao-Sulu and other parts of the Archipelago where first-class agricultural land still remains available in the public domain.

Persons desiring to secure the temporary financial assistance and other benefits offered by the government through the agricultural colony organization are required by regulation under the acts mentioned to sign an agreement binding themselves to apply for and perfect a homestead entry on designated agricultural public land, to cultivate at least 2 hectares (5 acres) in palay the first year, and reasonably increasing areas each succeeding year, and to comply with the administrative regulations of the board on agricultural colonies approved by the Governor General and communicated to them by the respective colony superintendents. These regulations have to do with agricultural methods, house sanitation, and conduct generally in so far as concerns other colonists and the colony interest, during the homestead period of five years and such further period as the colonist may require to repay the government in cash, or its equivalent in produce, for the temporary financial assistance received. The government for its part, having investigated the antecedents and satisfied itself that the applicant for admission as a homestead colonist is probably qualified physically and otherwise for his undertaking, by its representative signs the contractual agreement with the applicant. There is then advanced to the latter such sum of money, ordinarily not exceeding ₱20, as may be necessary to pay any small local indebtedness and close up his affairs preliminary to embarkation for the designated homestead colony location. Transportation for the colonist, his family, and necessary personal effects is then provided by the government on account of the colonist, and upon arrival at the colony a homestead location is given and the necessary building materials not to be found on the homestead are provided by the government at a cost averaging somewhat less than ₱10 per colonist. The colonist then proceeds to erect his first dwelling house at a designated point on his homestead. Work carabao, plow, and other necessary and customary implements and tools for field work are then furnished by the government to the colonist and money value charged in his account, as are also food staples in kind, and cash for the purchase of secondary food stuffs and miscellaneous small necessities from the colony store or elsewhere, as the colonist may elect.

The colonist's debt is discharged by the proceeds of sale of the rice and maize of his production, which he is required to turn in to the government for this purpose, as well as by the proceeds of sale of other crops, the growing of which by the colonist is optional with him, though encouraged by the government; or the debt may be paid at any time in cash if the colonist so elects. Under the present arrangement 35 per cent of the rice and maize produced by a colonist accrues to the government to meet the expense of supervision and other charges of the colony undertaking not identified with the individual colonist, the remaining 65 per cent of his rice and maize crops going to his personal credit in his account with the government. There is under consideration the abandonment of this method of reimbursing the government for general administrative charges and

substituting in lieu thereof a merely sufficient interest charge on the indebtedness of the colonist. The rate apparently would not need to exceed 10 per cent per annum, an extraordinarily low rate, far less than the colonist could possibly borrow money or otherwise secure credit on his own account. Once the colonist has reimbursed the government for advances made in temporary financial aid he is entirely free in the disposition of the product of his labor, and upon the completion of the homestead period of five years the government issues to him title to the land, and his agreement with the government becomes fully discharged.

The marketing of produce and the purchase of supplies are, of course, accomplished by the government upon much more advantageous bases than would be possible for the individual farmer and the organization, and methods followed are planned and carried out along such lines as to create the habit of cooperative action. The government undertakes in this way to demonstrate to these farming communities the practical application and material benefits of cooperative organization which it is hoped will generally be adopted upon the termination of the period of government assistance and control.

The agricultural colonies, therefore, go far toward developing the ideal citizen. The colonist becomes an independent landed proprietor of an area abundantly sufficient to support himself and family. He is trained to cooperate in the purchase of supplies, in the marketing of produce, in irrigation, in maintaining public order, and in all measures which affect the general welfare of the community. His children attend the farm schools described elsewhere in this report. As for himself, the whole colony organization is a practical school of agriculture where under experienced instructors he learns to select the land best adapted to his various crops, the methods of its preparation, how to plant, cultivate, harvest, and prepare for market most advantageously.

The branch of the public service upon which the Government primarily depends for the making of citizens is that of the public schools. Alone they can not accomplish the greatest practicable results in the preparation of the ideal citizen, but supplemented by other coordinated activities of public service, as is done in the agricultural colonies, it seems reasonable to anticipate a considerable degree of success in the attainment of the desired result—in fact, we are already assured of this.

In addition to the development of an approximation to the ideal type of citizen, another objective of the agricultural colonies undertaking mentioned in the acts is the material increase in the Philippine production of food cereals to overcome, if possible, the annual shortage of production of these crops in the Archipelago during more than 15 years past. The annual importation of rice since 1905 has generally exceeded in value ₱7,000,000 and sometimes reached as high a figure as ₱26,000,000. In quantity the maximum importation of rice in any one year since 1898 was 300,000 metric tons in the year 1912. At a rate of production of 1 ton of rice per hectare annually it is apparent that there would be required to produce this maximum deficit 300,000 hectares under rice cultivation in addition to the area in production in that year. It is, of course, a fact that the

extraordinarily large importations of rice in the year mentioned were due to general crop failure in the rice-producing regions of Luzon coincident with crop failures of both rice and maize in the Visayas.

Mindanao-Sulu has constituted a negligible factor in the total rice and maize production of the Archipelago. Climatic and especially conditions of rainfall, while generally similar throughout Luzon and the Visayas, are sufficiently diverse in the Archipelago as a whole, when Mindanao-Sulu is included, to warrant the conviction that a general crop failure throughout all three regions of the Archipelago will very rarely if ever occur during the same year. In this connection it is noteworthy that abundant and, in fact, excessive rains generally throughout Luzon and the Visayas coincide with the period of severest drought in Mindanao-Sulu and vice versa. This statement of fact is based upon personal experience and popular belief which among these people is apt to be premised upon fact rather than upon the statistics of the weather bureau, which for Mindanao-Sulu are necessarily extremely limited by reason of lack of funds for the establishment of the necessary number of properly located stations and observers. Furthermore, in addition to the more than sufficient area of public land available and well suited to rice cultivation the problems of irrigation to supplement and, when necessary, replace seasonal rains, offers far fewer difficulties for solution in Mindanao than in the northern islands, where the mountain ranges and other sources of rivers and small important streams have been denuded of forest growth to a greater extent than in this department. Also there are not here to be overcome the difficult and vexatious questions of right of way for irrigation canals, which is a factor of some importance at least in the prompt execution of the larger projects in Luzon and the Visayas, where the greater portion of the land is privately owned and oftentimes distributed between a very great number of individuals.

The one province of Cotabato lacks only people to cultivate its rice land, which is adequate to produce all the rice required to feed the present population of the entire Archipelago.

Another objective of the agricultural colonies undertaking is that of the better distribution of the population of the Archipelago and the closer and permanent settlement of the scattered, more or less uncontrolled, and partially nomadic inhabitants of the regions where extensive areas of public domain are to be found. Thus from densely populated Cebu and the Ilocos Provinces, where a considerable portion of the population is forced away from agriculture by the lack of available land, and where unwise exhaustive methods of agriculture have been pursued, greatly reducing the productivity of the soil, the surplus population born and accustomed to a relatively severe struggle for existence may be encouraged and aided to fulfill their ambitions for ownership of land and more ample rewards for their labor by emigration to the sparsely populated and potentially wealthy provinces, within which class fall all seven provinces of this department.

The closer settlement of local natives in these regions where extensive areas of public land still exist is a problem compelling serious attention and the earliest possible solution if these units of potential economic and civic values are to be utilized and made a part

of the body politic. The methods heretofore followed with any degree of success by the previous Spanish and existing American Governments in these islands have partaken of the character and served to suggest the development of the agricultural colonies project.

In periods of failure of food crops and under other favorable casual circumstances these local natives (Mohammedans and pagans) seek admission as colonists. In the absence of special favorable circumstances some urging, not, however, reaching the degree of duress, is necessary to secure the closer settlement of these more primitive elements of our population. There are now residing within the colonies as a result of the closer-settlement feature of the colonies undertaking Mohammedans and pagans to the number of 1,741, the majority of whom sought, rather than were required, to come under colony assistance and control. Apparently no serious delay or considerable difficulty will occur in the inclusion of Mohammedan natives under colony organization. In the case of pagans, present indications are that it will be the exception rather than the rule to encounter serious difficulty in bringing this element under control and productive labor as the preliminary step to the development of the next generation into fairly capable and useful citizens.

Still another important result worthy of being stated as an objective, incidental to the relief of excess population in the northern Provinces and the closer settlement of the less civilized elements of the natives of Mindanao-Sulu, is the amalgamation or blending of these various elements into a homogeneous whole. At the initiation of the colony project in 1913 so positive were the assurances and warnings as to the impossibility of mixing in the same communities Christian and Mohammedan natives the plan of separate colonies for these two elements was adopted, as indicated by the two organic Acts Nos. 2254 and 2280. The first immigrant (Christian) colony and the first local (Mohammedan) colony were organized at about the same time and separately located in the valley of the Rio Grande, about 90 kilometers up the river from Cotabato town. Various circumstances combined to overbalance the doubt as to the wisdom of immediately adjacent locations for these two colonies. However, notwithstanding some administrative effort to prevent, the Christian (Cebuano) colonists and Mohammedan (Maguindanao) colonists soon began to establish relations of barter and trade with each other in the customary local market places; the comparatively slight difference of dialect apparently offered little barrier to intercommunication and mutual understanding, and from this social intercourse was established; the Mohammedans displayed interest in and attended the Christian festivals, and the latter attended in a similar way the Mohammedan festivals as they occurred until, on the occasion of an especially important annual festival of the Mohammedans, a joint program of field sports in which both Christians and Mohammedans participated as judges and contestants was carried through harmoniously. These increasingly amicable relations, which the members of the board on agricultural colonies had hardly ventured to hope might come even after the lapse of some years, demonstrated this objective to be feasible. From the standpoint of the Filipino people, at least, it is of prime importance, for its aim is the amalgamation of the Mohammedan and Christian native population

into a homogeneous Filipino people, a people no less united and homogeneous than the American people and as tolerant of religious differences and liberties. It may be repeated here, parenthetically, that not only in the colonies but generally throughout Mindanao-Sulu, the Mohammedan Filipino has shown, if possible, a greater religious tolerance and respect for the religious beliefs and practices of his Christian brother than he has received from the latter, this in reference to the minor daily incidents and amenities rather than as to pronounced attitude or the occurrence of any grave incident, of which there has been none during 1914.

In view of so clearly favoring circumstances the so-called mixed colony or community made up of both Christian and Mohammedan colonists was decided upon for future organizations and the three colonies since organized have so been arranged. The last, that at Glan en Sragani Bay, in the southeastern part of the Province of Cotabato, will include mountain pagan Bilans as well as Mohammedans. The rule now being applied, so far as practicable, is that of locating alternately on adjacent homesteads Christian and Mohammedan or pagan colonists when the relative numbers of the two classes are approximately equal, and in cases which will occur of a distinct preponderance of Mohammedan and pagan colonists in a community the immigrant Christian colonist minority will be as widely scattered as possible throughout the non-Christian majority.

Interference with religious affairs is effectively prohibited. It is no purpose of the colony undertaking to proselyte or seek to convert to Christianity the Mohammedans or pagans, such enterprise being here, as in the United States, wholly one of private endeavor, for which the colonies are not thought at present to afford a propitious occasion. The colonies do, however, deliberately seek not only the economic development and social betterment of the Mohammedan and pagan, who more or less consciously emulate the higher type of civilization, but also their more constant and diligent directed labor with consequent greater economic efficiency, which the non-Christian observes to be the distinctive characteristics of his more civilized Christian fellow colonist. These comparisons, unfavorable to the Mohammedan and pagan, are premised upon ample opportunities for observation during the past 16 years, and a compelling necessity of considering and estimating the Christian native as an economic unit, together with careful comparative study, especially during the past 2 years, of the Christian, Mohammedan, and pagan natives as productive units. There are undoubtedly individuals and perhaps groups of Mohammedans and also of pagans who are productive units of greater economic value than individuals and even groups which might be selected among the Christian native population. But an inquiry of the character of this discussion must deal with the general types and not with exceptional phenomena. The present impression is that the Mohammedan colonist, especially in the mixed colonies, has an economic efficiency at least 50 per cent greater than that of his former neighbor who still pursues his customary course as an independent resident of the locality.

The agricultural colonies as yet organized were of the character of experimental projects for the purpose of determining, in the first place, whether the basic principles were probably correct and,

secondly, to develop by practical experience those facts regarding methods and procedure upon which might be formulated instructions, rules, and regulations for the guidance of supervisory personnel and the colonists themselves in the event of entering upon the undertaking on a large scale involving considerable capital investment and sufficiently extensive to make a material impress on the defects to be corrected and the evils to be remedied. Of the original appropriations of ₱450,000, ₱100,000 was withdrawn for the subsequently determined upon and so-called "American colony" project at Momungan, Lanao, which is a separate undertaking administered by the insular bureau of agriculture. After deducting the allotments to the colonies authorized and organized in Bohol and Cagayan, entirely outside the jurisdiction of this department, there remains as available as capitalization of the Cotabato agricultural colonies the sum of ₱276,701.62. With these funds there have been recruited in the province of Cebu, transported, and are now located in the Cotabato colonies 427 families, comprising 2,068 men, women, and children. With this capital fund there also have been equipped and financially aided Mohammedan and pagan colonist families in number 347, comprising 1,741 men, women, and children; a total of 774 colonist families of 3,809 men, women, and children.

In view of the withdrawal for the Momungan colony from the amount originally appropriated for the agricultural colonies, and in order to develop them in somewhat more extended form than originally planned there was added by authority of the Philippine Legislature, Act No. 2465, so much as might be necessary of the sum of ₱150,000 to be borrowed from the insular gold-standard fund.

The colony locations are generally river flats covered with a dense growth of tall wild grass with but little forest. The work of clearing even this wild grass and breaking the land preliminary to its cultivation necessarily involves a far greater amount of time and labor than similar operations ordinarily do in the United States. Furthermore, the decaying roots of this wild grass, as elsewhere in the Philippines, appear to liberate some element in the soil prejudicial to the growth of practically all cultivated crops. However, this noxious substance disappears on the aeration and washing of the soil incident to the customary repeated plowings and one season of abundant rains. It therefore follows that the first considerable crop may not be secured until the second year of cultivation. The majority of the colonists, who arrived too late to take advantage of the seasonal rains of 1913 and were seriously handicapped by the destructive drought of 1914, are expected to harvest their first average good crop in 1915. These more than ordinarily untoward circumstances give the advantage in practical experience of data for the determination of a probable maximum capital investment by the government per colonist. Assuming that the entire amount of funds will have been invested in the undertaking before the proceeds of the next crop may be realized the average investment of the government per colonist will not exceed ₱500, of which a conservative estimate is that less than 80 per cent, or ₱400, will be the average personal indebtedness of the colonist to the government. That this indebtedness does not constitute a burden impossible of easy discharge within the

agreement period of five years is evidenced by the fact that notwithstanding the extraordinarily severe drought and the fact that in this particular case at least two replantings were required on account of destruction by locusts, one colonist, with no labor assistance other than that of his two partially grown sons, harvested in 1914 a maize crop having a local market value of approximately ₱250. This amounts to 50 per cent of the maximum estimated investment per colonist.

Every reasonable effort is made to discourage the colonists from incurring unnecessary expense or in any way unduly increasing their indebtedness. In addition to public schools, free medical attendance and medicines are furnished them, the latter as part of the general administrative expense of the colonies, which, as heretofore stated, is provided for from the government's share of the proceeds of sale of the colonists' crop. Weekly assemblies of colonists at the respective colony headquarters are held for the purpose of communicating to them instructions and timely advice. These weekly assemblies close with a program of music and amusements tending to promote contentment and social improvement. Prizes are offered to colonists excelling in area cultivated, quantity and quality of farm products, etc. A model homestead, conducted as a practical demonstration of what a colonist should accomplish with the means at his command in the development of his land and home, is considered an important factor in each colony unit. The insular bureau of agriculture has favored the colonies with the permanent detail of a well-qualified representative who is engaged primarily in the determination of the varieties of rice best suited to the climatic and soil conditions of the different colonies, the improvement of methods of cultivation, and field work generally. A requirement as to kinds of crops planted is that of a definite total area comprising rice, maize, and a legume, generally lentils or beans, and plantations of two kinds of permanent fruit or other economic trees—coconut and cacao, with kapok (cotton) tree as a permanent plantation of secondary importance but useful as live fence posts, etc.

The colonies have now been carried on an experimental and development basis adequate in magnitude and for a sufficient period, it would seem, to have demonstrated conclusively their value and to present for determination by competent authority whether they shall be adopted on fitting scale as an activity of the government. To this some may reply that there is not yet demonstrated the certainty that the government will recover the amount of its investment from the proceeds of the crops turned over to it by the colonists. This doubt may be considered as dissipated or confirmed by the crop results of 1915, unless there occur some extraordinary destructive circumstance. Such untoward event, which would affect alike all agricultural enterprise in the vicinity of the colonies, would be typical of the unavoidable incidents of agricultural undertakings, and because of it certainly no one would undertake to contend that the government should discourage the mass of the people from engaging in agriculture or should withdraw its material assistance from that branch of human endeavor.

By extending the operations on a reasonably large scale the costs of transportation, supplies, supervision, etc., may be greatly reduced.

Furthermore, experience has demonstrated numerous economies which may be effected in practically all expense items. If the colony enterprise be now undertaken on a basis of moving not less than 2,000 families (10,000 persons) of immigrant colonists per annum and an equal number of local native colonists, it may be done on a capital investment of ₱250 per colonist family. This may easily be repaid to the government from the proceeds of three average annual crops.

19. COMMERCE AND SHIPPING.

The commerce of Mindanao-Sulu consists of the export-import trade passing through the ports of Zamboanga and Jolo to and from Singapore and Hongkong in vessels now flying the British or Japanese flags; trade in similar and other classes of goods with Cebu, Manila, and other ports in Luzon and the Visayas; and local trade from the various coast points within the department where merchants and traders are located. The trade with Luzon and the Visayas is carried in greater part by steamers licensed for the coastwise trade and to a lesser extent by small sailing craft capable of carrying less than 5 tons cargo each. The shipping between Mindanao-Sulu points is carried in greatest part on these small native craft and to a minor extent by coastwise steam vessels. On the great rivers of Agusan and Cotabato Provinces steam and motor launches are used to some extent, but the greater portion of the river trade is carried on boats and rafts. Aside from the military road connecting Dansalan in the interior of Lanao Province with the coast at Iligan, the relatively inconsequential wagon roads along the coast to the northward and to the westward from Zamboanga and the roads being constructed in Sulu, over all of which motor trucks are used to a greater extent than vehicles drawn by animals, the only facilities for land transportation of commercial products and supplies are by pack animal and carrier. This circumstance is not so great a bar as would seem to the commercial development of the present and, indeed, immediate future of Mindanao-Sulu, for the reason that all the commercial communities and most of the productive elements of the population are located on or near the coast and navigable rivers. These regions, so favored by the availability of incomparably cheap transportation by waterways, are even now but sparsely populated, and there is not, therefore, the compelling necessity for road construction proportionate to the total area of the territory.

The commerce of Mindanao-Sulu is analogous in character to that of all other agricultural communities which, though remote from manufacturing centers, have lost to a degree the habit of meeting their own requirements for clothing, etc., by the product of local or native industries, and have acquired the habit of reliance upon imported manufactured articles not only for personal wear and use in daily occupations but also to some extent for foodstuffs of prime necessity. This commerce suffers most because of inadequate shipping facilities for assembling agricultural and forest products at ports regularly visited by foreign and coastwise vessels, and for distributing from these ports merchandise required but not produced in the commercially tributary regions.

In addition to the foreign commercial steamship service which now seems definitely reestablished for the Singapore trade there are monthly steamers on the northbound and southbound voyages of one British and one Japanese line plying between Australia, Hongkong, and Japanese ports. While the trade with Australia is negligible there is considerable cargo carried by these vessels between Zamboanga and the other foreign ports just mentioned. Due to a statutory prohibition, private passengers and commercial freight between Zamboanga and Manila may not take advantage of these vessels, although Manila, like Zamboanga, is a regular port of call, and although by these steamers the two ports are distant from each other less than 48 hours while by the regular coastwise vessels 5 to 7 days are most frequently consumed in the same voyage, due to stops at intermediate points.

Statistics for the two open ports of Jolo and Zamboanga, including both foreign vessels and those flying the American flag, show that 762 vessels, having a net tonnage of 311,008, entered these ports during the year 1914. Of the above, 119 vessels, having a net tonnage of 124,654, were foreign, while the remainder, 643 vessels, with a net tonnage of 186,354, were American and engaged in the coastwise trade. The total export-import trade of these two ports during 1914 was valued at ₱3,127,042. There are no statistics covering the much greater domestic interisland trade between the sea ports of this department and the other portions of the Archipelago.

The commercial coastwise vessels afford no approximately direct communication between ports on the north coast of Mindanao with Zamboanga and other south Mindanao-Sulu points, neither have commercial steamers undertaken to maintain regular schedules between Mindanao north coast points. Upon the withdrawal by the bureau of customs of the cutter *Negros*, which made regular trips connecting these north coast ports, it became necessary not only to route via Cebu all mail from Zamboanga to north coast points east of Iligan but ordinarily mail between nearby north coast points was necessarily dispatched via Cebu involving considerable delays and in the case of shipment of supplies a very burdensome charge. Having funds available for the purpose the secretary of commerce and police sought to secure on a reasonable basis of payment for carrying the mails a regular steamship service between north coast points. Failing to accomplish this the secretary has taken up with the department governor an arrangement by which the department steamship *Borneo* may make monthly trips, on regular schedule, from Zamboanga along the west and north coast points as far as Surigao and return. It is probable that this schedule will become effective during the early part of 1915.

The department government maintains a small steamship, the *Borneo*, which runs on regular schedules, maintaining shipping facilities for passengers and cargo between the smaller ports in southern and western Mindanao and the Sulu Archipelago, the two ports of entry, Zamboanga and Jolo, and the ports of Cotabato, Diplog, Dapitan, and Iligan, which are visited by coastwise commercial vessels. The provincial government of Agusan maintains three motor launches on the Agusan River which carry commercial freight and passengers. The provincial government of Cotabato maintains a

large steam launch and two smaller motor launches on the Rio Grande for similar purposes. The provincial government of Sulu maintains a steam launch and the provincial government of Zamboanga two small motor launches which serve as dispatch boats and incidentally carry commercial passengers and cargo.

The department government has under charter from the bureau of customs the cutter *Mindanao* as a dispatch boat and for emergencies.

The *Borneo* is necessarily operated on a basis of making its receipts cover operating expenses, no allowance, however, being made for profit, deterioration, or extensive overhaul and repair. Within this limitation its schedules are arranged to provide the greatest possible service to remote shipping points and at the same time interfere as little as possible with the business of commercial vessels which are engaged exclusively in the carrying trade.

Inasmuch as no coal supply for steamships and other commercial demand is maintained at any point in the department by commercial company or private individual, the department government maintains at Caldera Bay, near the port of Zamboanga, a coal supply station primarily for its steamers and for the provincial launches at Cotabato and Jolo. Coal is also supplied when required to vessels of the United States Navy and the coast and geodetic survey and to vessels of the insular bureau of customs. Coal is also supplied to commercial vessels requiring such service at the port of Zamboanga. This coaling station, previously operated by the insular government, was taken over by the department government on July 1, 1914, and during the remaining six months of the year a total of 1,903 tons was sold. Charges made for this service are premised on actual cost, plus surcharges to cover handling and probable unavoidable loss.

Further aids to commerce and shipping are the arrastre plants at the ports of Zamboanga and Jolo by which cargo is received on tramcars on the wharf at ship's side and transported to the customhouses for examination and subsequent distribution by consignees. The arrastre service is operated by the customs collector at each port on account of the department government, which owns and maintains the plant and equipment. The total receipts of the Zamboanga arrastre for 1914 were ₱2,655.18 and for the Jolo arrastre during the same period ₱3,882.20. Extensive betterments in the Jolo plant were made during the year, the cost of which, together with operation charges, amounted to ₱8,915.32; betterments and operation cost at Zamboanga amounted to ₱3,911.75. These expenditures in excess of receipts for the year were made from funds which had been accumulated from operation receipts in previous years. A balance of funds remains at each port sufficient to meet operation cost and renewals of equipment that will be required from time to time.

In Zamboanga the department government operates a pumping station for the supply of water to vessels. The water is now taken from the canal which brings Zamboanga's supply of fresh water from the near-by foothills, but will soon be obtainable from the municipal waterworks system. During the year 5,349 tons of water were furnished to vessels. In Jolo, also, the department secures water under contract from the military system, and, under the supervision of the collector of customs at that port, furnishes the same to vessels. The net proceeds from the sale of water at Jolo are divided

equally with the bureau of customs in return for its assumption of administrative duties. The contract with the military was effective November 28, 1914, and up to the end of the year 340 tons of water had been supplied to vessels. The department government applies the profits from the sale of water at Zamboanga and its share of the Jolo water receipts to the upkeep and improvement of the wharves and their approaches at these two ports.

20. MANUFACTURES.

Manufactures other than those native activities which fall under the head of cottage or household industries rather than that of factory organization and operation have hardly made a beginning as yet in Mindanao-Sulu. The lumber mills and the timber industry have been discussed under the title of "Forests."

The refining plant and laboratory established at Cotabato by the Rio Grande Rubber Estates Co. for refining gutta-percha and beeswax has continued in operation during the year, but on a very limited scale, due to the serious disturbance of foreign markets and shipping by the European war. Considerable investigation and preliminary work on oil-bearing products, especially the biao or candle nut, have been done during the year. This is the only factory of its kind at present located in Mindanao-Sulu.

During the early part of the year 1914 an investigation was made and options secured by a representative of British capital with a view to extensive operations in coconut growing and its partial manufacture for export. Also it is understood that representatives of American capital had under consideration the establishment of a coconut-oil mill at Zamboanga or elsewhere in southern Mindanao. Both these projects appear to have been suspended—it is hoped not abandoned—because of the European war.

Salt is manufactured in a small way at Zamboanga and to a still more limited extent elsewhere, generally by Chinese, and following a very primitive procedure by the evaporation of sea water with the heat of the sun. The total product throughout the department is somewhat less than the market requires, this shortage being supplied by shipments of salt of native manufacture from the northern provinces.

Mindanao-Sulu offers to manufacturers of many diverse products an assured and ample supply of raw materials. Also of especial value in this connection is the great amount of water power easily available at several points on the island of Mindanao. That of the Agus River in its fall of 2,200 feet in a distance of 22½ kilometers (14 miles) from Lake Lanao to sea level is estimated at 750,000 horsepower at its minimum flow. Other hydraulic projects of some magnitude may be developed at any of the three falls on the upper reaches of the Rio Grande in Bukidnon and Cotabato Provinces, on some of the important tributaries of the Cotabato River, and smaller projects large enough to be of commercial value in Agusan, Davao, and Zamboanga Provinces. Abundant labor, accustomed to migrate to Davao, Cotabato, and Zamboanga in search of employment, is available on islands immediately to the north and but a few hours' steaming from Lanao, Bukidnon, and Agusan Provinces.

Continued and increased interest is being taken in the revival of the native arts by the people of Lanao and Cotabato, especially the manufacture of silver, copper, and brass articles of use and ornament as well as the weaving of cloths of native design wholly or in great part of materials of local produce. The revival of these industries is chiefly due to the trading stations which have been operated for some years past by the government to encourage industry and trade in the more remote regions, and to the increased demand for these articles occasioned by the displays and stocks successfully disposed of by sale at the Manila carnival expositions and more recently by the demand for unusually large quantities of these distinctive products for exhibition and sale in the Philippine division of the Panama-Pacific International Exposition.

In the public schools household industries are given an important place in the courses of study and practical training. The customary native industries of the locality are ordinarily given the preference in working out the details of this feature of the public-school courses. Special and successful effort has been made to improve the native hand looms customarily used in weaving. In Cotabato a special course in metal work is now provided in the public school at Kudarangan under the direction of a native who served his full apprenticeship in New York City shops and is an accredited master gold and silver smith. Basket, hat, and mat making are industries extensively taught. Embroidery and lace making are taught in the public schools in the village of Zamboanga and at some other points in the department. It is understood that the private schools also generally include instruction in embroidery and lace making and in some other household industries.

21. BANKS AND CREDITS.

The only organized commercial bank doing business in Mindanao-Sulu is the Bank of the Philippine Islands, which has established branches at Zamboanga and Jolo. Statistics as to the transactions of these branch banks are not at hand here, but doubtless may be found in the report of the insular treasurer. The facilities afforded by these local branches of the Manila Bank of the Philippine Islands are of great material aid to commerce at these two ports. It is improbable that available business at either of these ports or at any point in the department at the present time would warrant the establishment of an independent local bank or the establishment of competing branch banks except perhaps branches of a bank having its head or at least a principal office at Singapore. An association of Chinese has been conducting certain banking operations in Jolo for some years past. The association is unincorporated and is said to handle no deposit accounts, but to control practically all the trade between that port and Singapore.

It is understood that the Chartered Bank of India, Australia, and China, a British corporation, is arranging to close its branch office which heretofore has been maintained in Zamboanga chiefly for exchange purposes.

Thus far private commercial banking operations in Mindanao-Sulu have been generally limited to merchants' credits, ordinarily

declining to enter the field of rural or agricultural credits by either land mortgages or crop loans. The Agricultural Bank of the Philippine government has invested only a small amount in plantation land mortgages here. The Manila depository of public funds for the department and provincial treasurers is the government Agricultural Bank, and it is understood that all provincial treasurers except at Zamboanga and Jolo are authorized to accept private deposits for the Agricultural Bank and to sell exchange on Manila and other provincial points as required by private interests. The Bank of the Philippine Islands, including its branches, is also an authorized depository of public funds under the control of the department and provincial treasurers.

At Zamboanga and Jolo where private banking facilities are available, the government Agricultural Bank does not maintain branch offices.

The Postal Savings Bank, a government institution, is represented by the postmasters at Zamboanga, Jolo, Cotabato, Parang, Dapitan, Baganga, Davao. Camp Keithley (Dansalan). Iligan, Malabang, and Siasi for the receipt of savings deposits. This bank has a limited amount invested in building loans on improved Zamboanga urban property.

The Zamboanga Mutual Building and Loan Association, conducted along lines similar to those followed by successful enterprises of this character in the United States, has been in successful operation in Zamboanga for some years past. To a degree this offers opportunity for systematic savings deposits and also for loans for the construction and improvement of residential and commercial real property.

The only opportunity available to the agriculturist for credit either to purchase or improve his land and equipment or for loans on growing crops is the private money lender. Loans are made by merchants engaged in the export trade, and also by local merchants and traders, on future deliveries of copra, hemp, and rice at rates running from fairly reasonable charges made by a few merchants and traders through varying degrees to grossly exorbitant direct and indirect charges which, especially at the more remote points and in dealing with some of the exceedingly improvident classes among the pagans, too often distinguish transactions of this kind made by the small trader and individual money lender. In all this, however, there is nothing peculiar to Mindanao-Sulu or the Philippine Islands, since analogous practices are well known to exist in many other countries, if not generally throughout the world. There is, therefore, no less compelling necessity here than in the United States for government intervention and the provision by it of really available facilities for both land mortgage and crop loans to planters and farmers. The extension of the agricultural colony organization and benefits will, of course, make coextensive the benefits of necessary rural credits of the nature of crop loans. These benefits, however, are obviously not available to persons not resident within the colonies and under contractual agreement as colonists, and are therefore beyond the reach of the great mass of the people. No other method of relief seems feasible and of general application throughout the department.

22. MISSIONS AND OTHER PRIVATE PHILANTHROPIES.

Organized private philanthropy is an important factor of public service second only to government in Mindanao-Sulu. Its activities are chiefly denominational Christian missions, which are as a rule comprehensive in the scope of their work, covering quite fully the range from the spiritual conversion of the pagan to Christianity to his material betterment, including primary-school instruction for the children.

Roman Catholic Church missions constitute the only organization generally covering Mindanao-Sulu. The seven provinces of the department, together with the adjacent provinces of Misamis and Surigao, constitute a diocese at the head of which is the Right Rev. M. J. O'Doherty, D. D., bishop of Zamboanga. Within the department are established 17 parishes with 193 missions. The clergy engaged in parish work are Jesuits, and comprise 28 regularly ordained priests and 17 lay brothers. At Zamboanga there are also the Rev. Vicente S. Martin, secretary to the bishop of Zamboanga, and an American priest. Stationed at various points in the provinces of Agusan, Cotabato, Davao, Lanao, and Zamboanga are 31 sisters of the Company of Mary, who are in charge of 15 mission schools for girls. Detailed data as to mission schools are given elsewhere in this report under the title "Public instruction," subtitle "Private schools."

The extensive mission work which was being carried on in Mindanao by the Jesuits under the Spanish Government was seriously interrupted upon the withdrawal of the Spanish military forces and governmental authority. After the establishment of American authority the mission stations were resumed as rapidly as personnel became available, but there still remains a considerable number of former missions which necessarily have been wholly or partially abandoned because of the lack of clergy.

Since the establishment of the diocese of Zamboanga, September 5, 1912, the work under the able direction of Dr. O'Doherty has been given positive impulse by constant episcopal visitation and insistent effort to place the schools and work generally on modern lines. Inadequate financial resources and lack of personnel seem to be the most difficult obstacles. The mission clergy in Mindanao-Sulu, except the American, Rev. William J. McDonough, S. J., in charge of the parish of Jolo and Sulu missions, are exclusively European Spaniards, and in the majority of cases trained in this field during the days of the Spanish Government. In addition to the necessity as a rule for covering considerably increased territory under almost appalling difficulties in the absence of transportation facilities through mountain and swamp jungles, they have had to bear burdens and solve problems which to them must seem beyond human power by reason of the separation of church and state with the consequent withdrawal of the favor and material support of government, as to them an entirely novel situation resulting therefrom. Fortunately there was not among the Christian population of Mindanao-Sulu popular opposition or ill feeling toward the Jesuit priests at the close of the Spanish régime. This clergy of exceptionally high standards has generally recognized the new order of things and has spared no effort to adapt itself to it. Under the vigorous impulse of episcopal direction and

with the inspiration of the superiors in Manila and the traditions of their order the Spanish Jesuit missionaries in Mindanao have made remarkable advance in the acquisition and use of the English language, and familiarization with the history, traditions, and ideals of American government. It is but just that recognition be here given to the cooperation and great assistance which the government has received during the past year from these pioneers of civilization, who, in the most remote regions of Mindanao, even beyond the definite influence of government, are ministering not only to the spiritual welfare, but to the material uplift and civilization of the people, oftentimes opening the way for the establishment of constituted government.

The parish and mission work of the Roman Catholic clergy in Mindanao-Sulu is devoted to the Christian and pagan communities. There are stated to be in Agusan 3 parishes and 60 missions, with 32,621 communicants; the province of Bukidnon, 1 parish and 60 missions, with 20,000 communicants; province of Cotabato, 1 parish and 7 missions, with 6,000 communicants; province of Davao, 4 parishes and 26 missions, with 33,140 communicants; province of Lanao, 1 parish and 4 missions, with 9,500 communicants; province of Sulu, 1 parish and 2 missions, with 1,000 communicants; province of Zamboanga, 6 parishes and 34 missions, with 77,484 communicants. The mission work among pagans appears to be meeting with great success, especially in the provinces of Agusan, Bukidnon, and Davao, in which I am informed that the number of conversions to Christianity averages about 150 per month. Due to the lack of priests there are still many former missions where work has not been resumed systematically since the withdrawal of the Spanish Government, and there is also a considerable pagan territory still untouched.

It is gratifying to be able to report that during the year there has occurred no serious conflict between representatives of church and state at any point within the department.

On the subject of public schools, which is doubtless the most difficult of all questions of mutual interest upon which to meet in entire harmony, there has been a great advance. In recognition of the fact that the parochial and mission schools are engaged in work of great public import of a character specifically within the field of compelling interest to government, there has been undertaken with a gratifying degree of success the beginning of the establishment of relations of coordination and cooperation. The rule has been laid down by government that there shall be no seeking of conflict by public schools with private schools, but rather, so far as possible, new public schools shall be established in communities where no private school exists, and in those communities where both public and private schools exist the former shall be conducted along lines tending to encourage the raising of the standards of the private schools, without destroying or otherwise unnecessarily prejudicing the latter. The administrative personnel of the public-school branch of the government have adopted an attitude of kindly interest and disposition to assist private schools in every proper manner within their power. The private schools have been at liberty to draw on the public schools for personnel and for advice and assistance as might be given in the matter of standard books, methods, etc., which are in use in the pub-

lic schools. All this is believed to have been helpful mutually, and feelings of friendly emulation, rather than the bitterness of competition and mutual condemnation, appear to be the trend of affairs on the date of this report. It is confidently expected that these relations will continue and that in the near future there will come into being a situation of mutual confidence and a marked degree of coordination between the schools.

The Right Rev. Charles H. Brent, D. D., bishop of the Philippine Islands (Episcopal Church), acting, it is understood, on his personal responsibility and supported by private philanthropists, has continued during the year various important philanthropic institutional undertakings in or near the towns of Zamboanga and Jolo. The Rev. Robert T. McCutchen, rector of the Church of the Holy Trinity, Zamboanga, which pertains to the missionary district of the Philippine Islands of the Episcopal Church, has acted as the local representative of Bishop Brent in supervisory control of the latter's several philanthropic undertakings in this department. These include the Zamboanga Hospital, in the municipality of Zamboanga, which is under the immediate charge of an American physician-surgeon, one American and six Filipino nurses; the Moro settlement house, under the direction of an American woman, assisted by one Spanish and two Mohammedan women teachers of lace making and weaving; the Sulu Press, under the immediate charge of a Mohammedan native, the stated purpose of which is the dissemination, by printed matter in the vernacular, of information of an instructive and generally beneficial character affecting the material well-being and indirectly the spiritual welfare of the Mohammedans of this region; and the Moro Boy Scouts, being a company of 25 Mohammedan native boys from 10 to 14 years of age, which is under the direct charge of an officer of the Philippine Scouts, United States Army, who voluntarily gives of his time and strength to this work aside from his regular official duties. All the foregoing activities are located in the immediate vicinity of the village of Zamboanga.

In the municipality of Jolo work has been carried on during a portion of the year among Mohammedan native women and girls by Mrs. Lorillard Spencer, of New York, assisted by Deaconess Virginia C. Young and three other American women. This work seems to have been an adaptation of what is known as settlement work in the United States, and appears to have been well received by the people. It is regretted that it should have been discontinued. In connection with this work for native women and girls there was also opened and in operation for several months at Jolo a dispensary known as the Tulai free dispensary, under the voluntary supervision of Col. Charles Lynch, Medical Corps, United States Army, which gave medical and surgical relief to several hundred indigent Mohammedan natives each month. There is in project a farm school for which the government relinquished the site at Camp Indanan, on the island of Sulu, a few miles from the town of Jolo, in order to encourage the establishment of this private philanthropy and avoid the duplication of similar institutions in the same general locality. The government school project was then transferred to another island of the Sulu group, where the establishment of such a school had been contemplated later when funds might become available.

The good works of Bishop Brent in the Philippine Islands generally and of Mrs. Lorillard Spencer at Jolo are too well known not only in the Philippine Islands but throughout the United States to require extensive mention in this report. It has been a source of gratification to the government to extend to the personnel in charge of these undertakings all assistance and courtesies which opportunities have permitted, and the discontinuance of some of these activities is greatly deplored by responsible government officials here.

The Christian and Missionary Alliance has located the headquarters of its Philippine branch at Zamboanga under the direction of the Rev. David O. Lund. This missionary enterprise maintains five mission stations, all in Zamboanga Province, those of Zamboanga and Tetuan being in communities whose population is chiefly Christian, those of Lamitan (island of Basilan) and Taluksangai being in Mohammedan communities with a considerable Christian element, and that at Margosatubig in an almost exclusively Mohammedan and pagan territory. The personnel of these missions comprises 1 ordained clergyman (European), 2 American male and 2 female and 4 native male and 2 female mission workers and teachers. Five mission schools are maintained, one being a boarding and day school and the remainder day schools; a night school for Chinese and Filipinos is maintained in Zamboanga. The latter is attended by men and boys only. The attendance at the other schools is about evenly divided between boys and girls, except the boarding and day school at Tetuan, which has about 35 girls and 5 boys. The total number of children enrolled in these schools is stated at 210. The course of study undertakes to correspond to that in the public primary schools, and in some instances as high as the sixth grade; industrial training is given to some extent, and the work in embroidery, under Mrs. Lund's able supervision in the Tetuan boarding school, is deserving of especial favorable mention, as is also the plan of work being developed in the school at Margosatubig (pagans), the type which in the scheme of public instruction is known here as a farm school. These activities, while nominally under the Christian and Missionary Alliance, are stated to be receiving but partial support from that organization, and to be to a great degree self-sustaining or supported by independent personal donations. The stated number of adherents to these mission activities is 600 persons. This organization has in project the establishment of at least one new station in pagan territory, with dispensary and industrial school features. The government, so far as it may with propriety do so, is encouraging the accentuation of these activities in pagan territory even at the cost of entire withdrawal from the present Christian communities, which, from the standpoint of mission cooperation with the government in the material and social betterment of the people, are certainly far less productive fields of labor. Notwithstanding the fact that financial resources are understood to be very meager, Mr. Lund and his assistants, by untiring energy and the zeal which they display in their work, merit great results, and undoubtedly will attain them, in their undertakings in the pagan districts.

There is maintained in the municipality of Davao a mission and hospital which are understood to be under the Congregational Church of the United States. These activities were established some

years ago and have continued throughout the year 1914. The hospital is understood to afford free medical and surgical relief to indigent persons of all nationalities and races. The Rev. Robert F. Black is in charge of the mission and Dr. C. T. Sibley of the hospital. It is regretted that data are not at hand to include in this report a comprehensive statement of the personnel and other resources engaged in these enterprises, and the results obtained. While due to the fact that the hospital is popularly considered a means of sectarian mission propaganda and its availability to the Roman Catholic population in the town and province of Davao is somewhat restricted thereby, yet there are in the province some Protestants and Mohammedans and a very large pagan element of population. By means of water transportation the services of the hospital are made available to a very extensive territory comprehending practically the entire gulf region of the province of Davao and extending well up the Pacific coast. It is understood that the aggregate number of cases receiving medical relief from this hospital in the course of the year, including out-patients, amounts to several thousands of persons. The government is indebted to this institution not only for its contribution to the general welfare of the people of the province of Davao, through relief given to both out-patients and those necessarily treated in hospital, but also for cooperation and assistance in many special cases. It is pertinent in this connection to mention the fact that prior to the period covered by this report the hospital personnel undertook for the government the care and treatment of a very large number of persons suffering from more or less repulsive diseases, who in the villages where they lived were popularly but erroneously considered to be lepers, and who had been brought by local officials to Davao for segregation as such. It is hard to conceive of a hospital supported by denominational enterprise rendering greater public service than seems to be given by the institution under discussion.

There are no Mohammedan missions in the Philippine Islands as missions are understood as an activity of Christian religious propaganda. There are no Mohammedan philanthropic institutions or organized activities in Philippine territory.

The Mohammedan missionary is apparently a merchant or trader, generally a Turk, Arab, Malay, or other foreigner of real or pretended superior intellectual and religious training, who is apparently independent of any superior ecclesiastical direction or control. The only instance during the year of what purported to be a purely missionary Mohammedan undertaking in Mindanao-Sulu was that of a man who arrived in Zamboanga about February 1, 1914, from Constantinople. This missionary, Es-sid Mouhamed Wedjih El-Kilani Zeid, is stated to have been a secretary to the Sheik Ul Islam, or supreme titular spiritual head of all Mohammedans, and to have come to the Philippine Islands for the purpose of reviving and purifying Mohammedanism here in response to an appeal from Hadji Abdullah Nuño and other Mohammedan zealots living in the village of Taluksaṅgai and perhaps some other communities in the extreme southern portion of the province of Zamboanga. This undoubtedly well-meaning individual, Hadji Abdullah, had, in conjunction with his fellow Mohammedans of Taluksaṅgai and two or three adjacent villages, ventured to assume to speak in behalf

of "the Mohammedans of all the Philippine Islands." However, the missionary who came in answer to this appeal found that he had answered a call from an exceedingly limited portion of the Mohammedan population of Mindanao-Sulu. While treated with the deference and respect customarily accorded by Mohammedan natives of this Archipelago to Arabs or Turks, yet the definite manifestations of welcome to him were practically limited to but a score of native Mohammedans and those Turks, Arabs, and other foreign propagandists of Mohammedanism resident within this territory some of the latter of whom stated quite frankly that his presence here was sure to be advantageous to them as members of the organization and as coworkers in the activities of which he was expected to be the ecclesiastical head. The great majority of the Mohammedan natives of Mindanao-Sulu had never, nor have they yet, heard of Hadji Abdullah Nuño, much less authorized him to speak for them. The Sultan of Sulu and many other influential and titular leaders of Mohammedans here expressed much concern regarding the purposes of the presence here of this emissary from Mohammedan headquarters at Constantinople, and especially sought verification of the rumor that he was here under government auspices and clothed with governmental authority. The native Mohammedan leaders saw in Es-sid Mouhamed Wediih a prospective irksome financial burden and interference with their independence in ecclesiastical and spiritual affairs.

It would clearly be in contravention of the general assurances given by the government to the Mohammedan natives of these islands were official authority to undertake to prevent the establishment or maintenance here of Mohammedan missions. Yet there are reasons of both transitory and fundamental significance affecting the present, and especially the future, well-being of the inhabitants of these islands which rendered the presence here of this Mohammedan propagandist not only obstructive to progress in many important lines of human interest entirely aside from those of religious import, but undoubtedly a grave menace to the success of the government's undertaking to make the Christian, Mohammedan, and pagan elements of population in this department a homogeneous people. The Mohammedan Filipino, as has been stated elsewhere in this report, is either entirely tolerant in religious matters or merely on the defensive. The introduction into this region of reactionary and militant propaganda, such as notoriously is that radiating from Constantinople, must prove fatal to immediate and continued progress in the execution of the government's program here. Furthermore, the insistent pretense of this emissary from Constantinople that he was clothed at least with quasi governmental authority would, if he were allowed to remain here, unavoidably place the government in a position before the people false to its constantly and authoritatively stated policy of refraining from intervention in the spiritual affairs of the people and humiliating to most Americans and well-wishers of American institutions. Furthermore, there had been for some months rumors that Constantinople was not only planning, but organizing and carrying on propaganda throughout the Mohammedan world preliminary to a holy war to be declared against all Christian governments and peoples—

a revival and extension of militancy to the uttermost parts of Mohammedan territory. In view of these rumors, which were attracting some attention among Mohammedans here, this arrival of an emissary from Constantinople was not conducive to the tranquillity of the public mind. Coming as he did and under these circumstances, almost immediately after the inauguration of a purely civil governmental régime with the complete withdrawal of the military from active participation in public administration, the coincidence tended to aggravate the situation in every way and added very materially for the moment to the burdens of responsible government officers.

However, through a further coincidence, serious physical illness, which was recognized in Manila where Es-sid Mouhamed Wedjih went for conference with higher official authority shortly after his arrival in Zamboanga, it became necessary for him to seek restoration of health, and accordingly he left the islands, returning, it is understood, to Constantinople.

There does not exist on the part of Mohammedan Filipinos generally, nor, so far as can be ascertained, on the part of any considerable number of other Mohammedans here, a desire for the coming of foreign Mohammedan teachers. The attitude of the Mohammedan Filipino toward sympathetic government officers as well as toward foreign Mohammedans resident here is generally that of deference and humble acquiescence, at least for the moment, in what seems to be kindly advice regarding spiritual as well as material welfare. When encouraged or incited by such extraneous or alien influences to do so, the Mohammedan Filipino will express a desire for religious teachers to come here from Singapore, Cairo, Constantinople, or other recognized centers of Mohammedan learning, but he also responds vigorously and with obvious sincerity to the suggestion that his own knowledge of his religious faith, which has been not only his but that of his ancestors for perhaps five centuries or more, is sufficient for him. When entirely at his ease and conscious of freedom to speak without restraint the Mohammedan Filipino protests most bitterly against the exactions and petty oppressions which he suffers from the Mohammedan Turks, Arabs, and Malays resident here who often times, pretending to be the direct descendants of the Prophet or endowed otherwise with superiority which may not be questioned, exact from the native not merely food, money, lands, and his most attractive women, but an attitude of almost abject servility which is increasingly resented as through the influence of American environment the Mohammedan like the Christian native is beginning to awake to a sense of some of the fundamental doctrines of equality among all men.

23. POLITICAL CONDITIONS.

As stated under the heading "Organization," the reorganization of this department, under the provisions of Act No. 2408, Philippine Commission, was effected on September 1, 1914. By virtue of this reorganization provincial boards were created in each of the seven provinces constituting the department, the functions of these provincial boards being quite similar to those of the northern provinces and composed of three members, the provincial governor, the

provincial secretary-treasurer, and the third member. While in the northern provinces the provincial governors and third members are chosen by general election, the provincial governors in this department are appointed by the department governor, subject to confirmation by the Governor General, and the third members are chosen by the vice presidents and councilors of all the municipalities and municipal districts of the province. This, indeed, was the method first pursued in the selection of the governors for the regularly organized provinces.

On September 1, 1914, the new department and provincial governments were inaugurated at Zamboanga with appropriate ceremonies. Speaker Sergio Osmeña, Philippine Assembly; the Hon. Vicente Ilustre, member Philippine Commission and representative of the Governor General; the Hon. Winfred T. Denison, secretary of the interior; several provincial governors and members of the Philippine Assembly from the northern provinces; officers of the United States Army; church dignitaries; and other distinguished visitors honored the occasion by their presence. Before these and a great concourse of people representing all elements of the population the oaths of office were administered to the officers of the new provincial government of Zamboanga, a Christian Filipino governor, an American secretary-treasurer, and a Mohammedan third member. Never before had the Mohammedan element been honored by representation in such high governmental office and the occasion was rendered memorable—even epoch making—not only by the immense stride toward autonomy in local affairs signalized by the establishment of provincial governments, but also by the harmonious association of Christian and Mohammedan in the control of their mutual public interests.

Under the new organization Christian Filipinos were appointed as governors of the provinces of Agusan, Bukidnon, and Zamboanga, and the Americans then governors of the districts of Cotabato, Davao, Lanao, and Sulu were continued as governors of the newly organized provinces of the same names. Following the resignation of the American governor of Davao a Filipino was appointed to that office on January 1, 1915.

Because of the fact that the organization of the municipal districts in the provinces of the department could not be completed before the end of the year covered by this report, the election for the third member of the provincial board has been set for the 16th of March, 1915. For the period from September 1 up to the election the third members were appointed by the department governor. The appointees for Cotabato and Zamboanga were Mohammedans, those for Agusan and Davao were Christians, and that for Bukidnon province was a Bukidnon (native of the province). The offices of third member for the provinces of Lanao and Sulu were not filled during the year 1914, the purpose being to avoid any friction between local factions by leaving the matter entirely to the voters when the election should be held.

The time which has elapsed since the establishment of the present régime may perhaps be considered too short to warrant any definite assertion as to results. Nevertheless, as far as the public in general is concerned, especially the Mohammedan portion, which constitutes

the majority of the inhabitants of this department, it may be fairly stated that the change of government has been well received. As a matter of fact, since the inauguration of the above-mentioned provincial governors no serious complaint has been made against them by any Mohammedan or other non-Christian residing within their jurisdiction for illtreatment, interference with religious beliefs and practices, or any other encroachments upon the rights or privileges of the people. On the contrary, the Mohammedans, as well as the other non-Christians, are beginning to realize that the Christian Filipinos holding government offices are rather devoting their time to the fulfillment of their duties for the benefit and welfare of all the inhabitants under their control, regardless of the religious beliefs of the latter. Results of this realization are the increasingly harmonious and closer relations between the Mohammedan and the Christian Filipinos.

One of the noteworthy features resulting from the new governmental organization in this department is the fact that with the establishment of municipal districts in localities the majority of the inhabitants whereof have not progressed sufficiently in civilization to make it practicable to bring them under municipal government, the administration of local affairs in the small towns and villages lying outside of regularly organized municipalities is being gradually placed in the hands of the local authorities—the officers of the municipal districts above mentioned. The result of this plan is that the people living in these towns and villages are becoming more public-spirited and are acquiring more confidence in the purposes of the government in its undertakings in Mindanao-Sulu. It is highly gratifying to observe the development of these municipal districts, and it is reasonable to expect that this embryonic form of local control will evolve in the not distant future into a satisfactory standard of municipal government.

During the year there has been no apparent activity in the organization of political parties within the department. The Nacionalista Party has a delegate for the department and local committees at Ayala, Gusu, Manika'an, Mercedes, Santa Maria, Talisayan, Tetuan, and Zamboanga in Zamboanga Province, and at Cotabato and Davao in the provinces of these names. This organization has been of much assistance to the government as furnishing points of contact with popular opinion regarding affairs of local public interest. In anticipation of the proposed elections to be held early in 1915 for municipal vice presidents and councilors in the organized municipalities, and third members of provincial boards of all the provinces in the department, there have been indications of a disposition to organize in some municipalities committees of the Partido Progresista. Mention has also been made of a possible organization at one point of a local committee of the so-called third party, but as yet no definite steps in either direction are known to have been taken.

The policy of this office in regard to political party organizations has been to encourage the organization of two opposing political parties in each locality where elections are authorized by law, these local organizations to be affiliated with the central committees of the corresponding political parties in Manila. This course is believed to be an essential part of training for popular government

which, at least according to American ideals, must rest upon the expression of the popular will at the polls. Organized political parties, by presenting their candidates and platforms, offer the most orderly and assured opportunity for the voter to express his desire in regard to public policies to be determined by popular vote.

24. INSPECTIONS.

Not only for the purpose of initiating new work but also for the purpose of assuring correct action, continued energy, and enthusiasm on the part of all the personnel of the public service and also of assuring the better development of amicable and understanding relations between local representatives of government and the people, special attention has been given to official inspections by the department and provincial governors and municipal presidents supplemented by that of their various subordinates. The organic act (No. 2408) requires the department governor "to visit at least once in every six months every province within the department," the provincial governor to "at least once every six months visit every municipality in the province," and the municipal president "shall at least once every three months visit every barrio within the municipality." These statutory requirements are, however, amplified by executive requirement that municipal presidents shall constantly give their personal attention to work being carried on, or matters requiring their presence, in the various barrios of their respective jurisdictions; provincial governors are required to spend as much of their time as possible outside the provincial capital in the other municipalities and municipal districts, with the result that it is now practically decided to require by executive order that at least 20 days of each month shall be devoted to localities outside the provincial capital.

The department governor, in addition to making the inspections required by law, has during the year visited the various provinces with such frequency as conditions seemed to require, having traveled a total of 14,492 miles. This includes in addition to travel within the department three trips to Manila when required to appear before the Commission in connection with pending legislation, and other matters of official business requiring his presence in Manila.

In the course of these inspection trips the department governor has traversed the central interior region of Mindanao from the north coast through Bukidnon and Octabato to the south coast of the island. Provincial governors have covered very completely the territory within their respective jurisdictions, leaving but few regions not visited, the latter comprising only those districts in which as yet no government representatives are located. Definite plans have been made to have these regions inspected and arrangements completed, so far as our resources will permit, for the establishment in them of government stations. Provincial governors have definite systematic cooperation from the constabulary, many of whose officers in addition to their constabulary duties are designated as deputy governors, thus materially increasing the inspection force.

In public service, as in extensive private enterprises in which a high degree of efficiency is required, the value of inspection or "the master's eye" is now recognized as fundamental. It is believed that

in the present organization of the personnel of the executive branch of government of Mindanac-Sulu due provision is made for inspections. There is not, however, as yet available adequate means of transportation necessary to secure from this personnel the greatest possible economic efficiency from time and effort expended. During the year careful consideration has been given this problem of transportation, and it is believed that the correct solution has been reached, so far as our financial resources will permit, by the adoption of plans which will be put into effect as soon as the necessary inexpensive motor launches of proved efficient type can be secured, and the program of snag removal from rivers and of opening new trails and improving existing trails can be carried out.

25. PERSONNEL OF THE DEPARTMENT GOVERNMENT.

The personnel of the department government on January 1, 1914, was as follows:

Governor, Frank W. Carpenter.

Staff—Secretary, Edward Bowditch, jr.; treasurer, Charles Stark; attorney, William M. Connor, jr.; engineer, H. F. Cameron; superintendent of schools, C. R. Cameron; health officer, E. L. Munson, major, Medical Corps, United States Army, the grand total being 26 American and 71 Filipino officers and employees.

The department personnel on January 1, 1915, was:¹

Governor, Frank W. Carpenter.

Staff—Secretary, Isidro Vamenta; attorney, Ponciano Reyes; delegate, Doroteo Karagdag; chief health officer, Dr. Jacobo Fajardo, the total personnel for positions considered permanent for the year 1915 being 5 American and 37 Filipino officials and employees. The apparent reduction in number of officials and employees is in a great part due to the reorganization and taking over of public works, prisons, and schools by the respective insular bureaus.

On the reorganization of September 1, 1914, the following provincial officers were appointed and continued in office, as indicated January 1, 1915:

Province of Agusan.—Governor, Tecpisto Guingona; secretary-treasurer, James R. Shaw; third member, Bautista Kuison.

Province of Bukidnon.—Governor, Manuel Fortich; secretary-treasurer, Ramon Padilla (acting), Rosauo Lualhati; third member, José Mambinonsad.

Province of Cotabato.—Governor, Edward Dworak and W. C. Bryant, November 1; secretary-treasurer, E. S. Greene and Frank Klar, November 1; third member, Ignacio Ortuoste and Datu Saika Adam, November 4.

Province of Davao.—Governor, Ralph E. McFie and E. E. Causing, January 1, 1915; secretary-treasurer, M. A. Maxey and M. McMahan, November 11; third member, Francisco Bangoy.

Province of Lanao.—Governor, Henry Gilsheuser; secretary-treasurer, Guy N. Rohrer and T. W. Coverston, December 11; third member, none.

¹ Department treasurer is closing out affairs preliminary to discontinuance of office before June 30. The office of department engineer has been discontinued, its duties being taken over by a representative of the bureau of public works.

Province of Sulu.—Governor, Vernon L. Whitney and Guy N. Rohrer, January 1, 1915; secretary-treasurer, Charles E. Livingston and Paul D. Rogers, October 1; third member, none.

Province of Zamboanga.—Governor, Luis Lim; secretary-treasurer, H. B. Hughes; third member, Hadji Abdulah Nuño.

Presidents, vice presidents, and councilors of the 21 municipalities and 178 municipal districts are generally Christian, Mohammedan, or pagan natives. Three American planters in one municipality and two in another have been appointed councilors. In another municipality two American planters have been appointed vice president and councilor, respectively. In the municipal districts three have been appointed councilors in one and in another one vice president and one councilor.

26. CHRISTIAN, MOHAMMEDAN, AND PAGAN RELATIONS.

Without entering into the refinements of scientific classification but standing upon the firm ground of demonstrated practical facts and those conclusions which are premised on many years of public service in the Philippine Islands, it is understood as a fundamental fact that all the native population of the Philippine Islands, except the negrito, is racially homogeneous or so closely allied as to offer in their amalgamation as one people no such serious barrier as exists in the United States between the Caucasian and Negro, nor even so great as between the Caucasian and American Indian. The salient distinctions between the Christian, Mohammedan, and pagan Filipinos are those of personal dress, religious, and, to a degree, social customs and practices. The Mohammedan and pagan are entirely tolerant of the customs and practices of their Christian neighbors, so long as the latter do not undertake to impose these customs and practices upon them. The pagan's attitude is one of indifference toward Christianity unless his interest is aroused by an amicable propaganda or attraction, as practiced by successful Christian missionaries. If importuned or pursued too vigorously with demands that he become a Christian, he merely moves on and only resorts to violence in protest against the efforts in behalf of his spiritual and social uplift when it seems to him impossible to escape or when he has been provoked to frenzy. It has been well stated that the Mohammedan Filipino is, as a class, still a pagan with a veneer of Mohammedanism of which he is distinctly and always proud. That his Mohammedanism is not of the militant type is evidenced by the fact that on the island of Mindanao, where innumerable Mohammedan communities are located near, and have frequent, in some cases daily, contact with pagan individuals and communities, there is no apparent effort to extend, much less impose, the Mohammedan religion. The native Mohammedan treats the pagan with contempt, and generally asserts by bearing and words, which are reenforced by such personal violence as may be necessary, his superiority to the pagan. This and nothing more. The Mohammedan, if his suspicions be not aroused by what he considers an effort to proselyte, may attend Christian religious services, especially festivals, as he would a theatrical performance or other thing arousing his curiosity. He will ordinarily, as a matter of courtesy, comply with a proper

invitation to attend religious services in a Christian church edifice. This has occurred during the year, and has included individuals pertaining to the various ecclesiastical grades from the Sultan of Sulu down the line to the sexton of a Mohammedan mosque. The only expressions volunteered by Mohammedans as to their attitude toward the Christian religion and its devotees are obtained from them by friendly and encouraging questioning, and often begin with appeal to the government for protection against compulsory Christian baptism and subjection to efforts by Christian clergy and laymen to induce them to change their religion. As has been stated under the title "Missions," the attitude of the Christian clergy in Mindanao-Sulu toward both Mohammedan and pagan native elements has not given cause for serious complaint. The native Christian layman, however, has been less tolerant—perhaps the more correct term would be "courteous"—than has his Mohammedan brother. It is not strange, however, that it should be thus, as the Christian here has felt himself the superior both because of his obviously higher type of civilization and the fact that the established government has been that of a Christian Nation.

It has been noticeable that the Christian native coming to Mindanao-Sulu, either as an officer or employee of the present government or as a colonist under government control, has readily adopted and generally maintained an attitude in contact with the Mohammedan and pagan which has encouraged and attracted the latter to more cordial relations, resulting in a general betterment of the situation.

On several occasions selected Mohammedan and pagan natives, especially those of reputed pronounced antipathy toward Christian Filipinos, have been taken by the government to Manila and to several of the provinces in Luzon and the Visayas. The invariable kindly hospitality extended to the visitors by Filipino officials and private citizens in the course of these visits to the northern provinces promises to be the beginning of a better understanding between the people of the various regions of the Archipelago. This expectation is being realized in a far greater degree than anticipated. Among the individuals selected for these educational trips have been not only Mohammedan datos and headmen who had been most vociferous in their objection to political or social union with Christian natives, but also some leaders of large followings who had but a few months before submitted to governmental control. A typical case is that of Dato Alamada who after many years of evading contact with government agents and several engagements with troops and constabulary, had, as the result of negotiations extending over a considerable period, voluntarily come in with many of his men, on May 19, 1914, and surrendered to the provincial governor of Cotabato, pledging the submission to the government of his people, numbering nearly 3,000 men, women, and children. Some months later he accepted an invitation to visit Cebu, Manila, and adjacent provinces with a party of datos and other Mohammedans of local prominence from Cotabato, Sulu, and Lanao, begging, however, that he be assured of permission to carry his kris at all times and that he would not be required to wear "Christian" clothes. With the assurance that he would be quite free during the entire trip to carry his kris and to wear his customary clothing, he, before the end of the first

day, requested permission to discard the weapon, on the ground that he was embarrassed in finding that he was the only armed person either in the party or among other people whom he met. Further, before he had been in Manila 12 hours, he had surreptitiously provided himself with a complete suit of "Christian" clothing, except that he substituted a plain Mohammedan cap for the semiturban head cloth customarily worn by the Cotabato Mohammedans. Since his return to Cotabato he has been insistent in his requests for schools, homestead surveys, and colony organization for his people. Another typical case is that of Dato Ampatuan, of Cotabato, the son of an Arab Mohammedan missionary trader and a native Maguindanao woman, now a man of quite advanced age, and during his entire life of great influence and power among the people of the upper Cotabato Valley and adjacent mountains, where he controls many thousands of people. Ampatuan, although accepting unwillingly American sovereignty in the abstract, had practically conceded nothing thereto except to a limited degree the payment of the cedula or road tax when he felt that armed force was about to compel payment. He was definitely opposed to the establishment of the agricultural colonies, the immigration of Christian natives from the northern provinces, the establishment of public schools, and, in fact, to the intervention of the government, directly or indirectly, in the territory constituting his zone of influence. Rather unwillingly he accepted the invitation to accompany a party of datos from his own and other provinces with the department governor to Luzon and the Visayas. Although ill with malaria, which developed during the trip, and constantly much fatigued by the unaccustomed and almost constant travel and interference with his ordinary habit of life, he made the greatest effort constantly to see and inform himself regarding all matters of interest which were comprehensible to him, the Manila carnival being something he was not able to understand. He was especially interested and impressed by the more efficient methods and industry of the people of the northern provinces in the cultivation of the soil, the public schools for the children, and the commodious homes of the more well-to-do classes in which he and the members of his party were well received and entertained, and the great physical benefit he had received from the medical treatment and care given him by a Filipino physician and nurse. Since his return to Cotabato he has given constant evidence of disposition to comply with all the advice and orders of the government. The most recent expression from him has been a protest that the allowance of teachers and public schools for his people are inadequate.

Similar cases might be cited from Lanao and Sulu.

It has been the custom in the past for Mohammedans and pagans, when questioned by American officers and others, to state that they would never submit to being governed by Christian Filipinos nor to a policy of unification with the Christian native element politically or otherwise. These expressions were doubtless sincere in most cases and in others intended to meet the expectation of the questioner or to flatter him; to what extent they were sincere and to what extent mere flattery it is impossible to say. The Mohammedan and pagan undoubtedly have viewed the Christian native with suspicion and distrust. To this the Mohammedan has added more or less contempt,

because of the fact that to him death in combat with non-Mohammedans is attractive, an attitude which rarely finds analogy among Christians of any race. The pagan has generally feared the Christian native, because of the latter's superiority of intellectual training and arms.

However, no exotic element can perpetuate this situation if the Christian Filipino seriously undertake to attract and amalgamate the relatively small Mohammedan and pagan minorities in the population of the Archipelago. The responsibility of the Christian Filipino in thus working out the homogeneity of the entire mass of native population of the islands can not well be questioned. Even though the established government were to pursue a definite policy of apartness of these elements it would still be not only possible but practicable for the Christian Filipino in time to attract and absorb the non-Christians. With a central government at Manila like the present, definitely determined upon and assiduously devoting itself to the policy of amalgamation of all the native elements in one homogeneous whole, the responsibility for anything short of success must rest in greatest part, if not wholly, upon the popular leaders and the mass of the Christian Filipino population. In the liberality of the Philippine Legislature in the appropriation of insular funds for the financial aid of local government in Mindanao-Sulu, in the uniformly friendly attitude of the Filipino press in Luzon and the Visayas, in the invariable generosity and disposition to self-sacrifice displayed by all the leaders and other individuals to whom have come opportunity to serve the cause of unification of Mindanao-Sulu with Luzon and the Visayas, in all these facts are found abundant proofs that the Christian Filipino leaders and people recognize and will perform their full duty in this matter.

27. RECOMMENDATIONS.

The following recommendations, premised upon careful consideration of the relative urgency of the needs of the department, are limited to matters requiring legislative action. In those cases in which an expense is proposed, the amount indicated is that of financial aid required from the insular or federal treasuries and is exclusive of funds available from present local revenues. Insular aid is proposed in the form of appropriations from general funds for current expenses and for outlay of an investment character which may not be directly recoverable; also loans from insular trust funds, to be repaid within 10 years, are proposed in those cases in which the recommendation is for capital investment of a character that may be recovered directly.

Recommendation for financial aid from the federal treasury is ventured on the basis of productive investment of federal funds whether the national policy in regard to the Philippines be one of as speedy withdrawal as assurance of stable government may be had, or whether it be of the opposite extreme of permanent retention of the islands with consequent importance of stable government at an early date and the rapid development of trade potentialities. In any event the assurance of stable public-order conditions in Mindanao-Sulu is presumably regarded as of compelling importance, and this is

the objective in view. The work of the United States Army has been well done; the present generation is disposed to peace and loath to incur the liability of punishment by the armed forces of government. The boys of school age of to-day will within a very few years be the men constituting the controlling factor for or against peace and good order under whatever may then be the constituted government. If the fathers become in the near future permanently located on their own land, with documentary evidence of ownership, which is more highly prized by the native of Mindanao-Sulu, if possible, than by the native of the northern provinces or the American farmer, and if the children of to-day be given the school opportunities their parents desire for them and to which they are morally entitled from the government, the expenditure of the large sums of federal funds and the great sacrifices of life and health which the American people have made in Mindanao-Sulu during the past 16 years will not have been in vain, nor will they have to be made anew. On the contrary, without federal aid, dependent wholly upon the inadequate financial resources of the insular treasury and the exceedingly meager present revenues of the respective provincial and municipal governments, in less than 10 years from now, when a new generation, grown up without the civilizing influences of schools, proprietorship of land, public works, etc., and without experience of the chastisement administered to disturbers of the public peace, will have come into control of public opinion in the scattered communities in this region, the maintenance of public order will again present problems requiring perhaps large expenditures of lives and public funds by the armed forces of government. Then whatever there has been of progress in the accumulation of wealth, the social betterment of the people, and other benefits of civilization will inevitably be in great part destroyed.

While actual figures are not available, the expenditures of federal funds in support of the Army and military operations in Mindanao-Sulu prior to 1914 certainly averaged \$1,000,000 per annum more than the cost of the present military establishment in this region, which apparently is ample for present needs. It would seem to be good public finance to devote annually for the next five years an amount equal to at least one-half of this saving if thereby the expense of Army stations may be reduced still further and that of military operations for the suppression of internal disorder practically obviated.

It is therefore respectfully recommended:

(a) That the present financial aid of approximately ₱225,000 (insular funds) allotted to schools be increased by ₱500,000 (from insular or federal funds or both) as an assured annual appropriation for five years, thereby providing for 800 additional primary schools, and ₱150,000 to establish a normal training school for teachers. These schools, together with those which can be maintained from local revenues, will provide public instruction for about one-third of the children of school age.

(b) That financial aid of ₱125,000 per annum be appropriated for homestead surveys. If continued for five years, this will provide for the survey of approximately 150,000 homesteads, sufficient for the location of 80 per cent of the native population of Mindanao-Sulu.

(c) That financial aid be provided in the sum of ₱150,000 per annum, in addition to that now afforded from the insular treasury—approximately ₱80,000—to provide the urgently needed assistance to local resources in the extension of field dispensaries and services of trained nurses to afford medical relief, instruction in elementary hygiene and sanitation, the reduction of infant mortality by more intelligent care of newly born children, and the provision of potable water by gravity from mountain streams, artesian wells, and otherwise.

(d) That the insular appropriation for the bureau of constabulary be increased in such sum as may be necessary (about ₱500 per company annually) to provide for the transfer from duty in the northern provinces to Mindanao-Sulu of 14 companies—28 officers and 700 enlisted men—permitting the establishment of 20 additional stations to effect the extension and assure government control over those great districts in central and southern Mindanao which, until the present time, have been beyond the zone of effective governmental control. This contemplates the transfer of experienced officers and well-disciplined men for duty here, to be replaced, if necessary, in the northern provinces by new organizations.

(e) That there be made available by loan, at the rate now charged provincial and municipal governments, the sum of at least ₱4,000,000 from the gold standard and other insular trust funds for 5-year loans to the board of agricultural colonies for the extension of the mixed colony organization, as the method of accomplishing at once the closer permanent settlement of the native population, the location of immigrant agriculturists from the too densely populated northern provinces and the increased production of rice and maize, as discussed in this report under the title of "Agricultural colonies." The investment of these funds should be by the board on agricultural colonies under the supervision of the Governor General, or with such other safeguards as may be deemed necessary. This will provide for financing within the period of 5 years a total of 75,000 colonist families, or approximately 400,000 people, on a basis of ₱250 per colonist family. This calculation assumes the continued availability of the capital fund of ₱400,000 with which the present colonies are being operated, and that the amount of the investment recovered annually might again be invested for a period of 5 years, thus making the repayments by the board on agricultural colonies to commence on the expiration of the fifth year after the beginning of the operation, and final recovery of the full amount of the investment to be within the period of 5 years thereafter, or a total period of 10 years for the entire transaction. Ten years is the period for which loans are now made from insular trust funds to provincial and municipal governments for public works.

(f) First. That the present public land laws be amended so as to permit the repeated exercise of the homestead privilege without limit as to the number of times but retaining the present limit in area of 16 hectares at any one time. This amendment is desirable in view of the fact that there is a very considerable number of that type of colonist who is essentially a pioneer who prefers to take up and clear public land by his own labor and when his holding has

been brought into a good state of cultivation, disposes of it by sale for cash and move on to repeat the undertaking, perhaps three or four times or even more. This element is a valuable one and should be encouraged rather than discouraged as the law now does by rendering it impossible for such to acquire title again to a new location once the homestead right has been exercised. The amendment is also necessary because of the fact that the total area of 16 hectares must be taken at one time in order fully to take advantage of the homestead right. Otherwise, no matter how much short of this total may be the area actually taken, the repetition of the homestead privilege for a sufficient amount to complete the full 16 hectares is not permitted. Where the entire area is suitable for intensive cultivation and with irrigation, as for example in rice, an area of from 5 to 8 hectares is quite as much as one family is able to clear, bring under production, and cultivate profitably. Under the existing statutory limitations it is of questionable morality for the government administratively to prohibit, or even discourage, a homesteader from taking the full 16-hectare area, even though there be unavoidable waste of from 50 to 75 per cent of the public land, extending over a period of many years (perhaps indefinitely) before the homestead title will have been perfected and the entire holding brought under cultivation by subdivision either between the homesteader's children when they shall have grown to adult age or by sales to other persons.

Second. That the land laws be amended so as to permit the transfer by a homesteader to another individual before the former shall have perfected title, thus permitting the pioneer type (when opportunity offers) to sell the product of his labor to the less venturesome and ordinarily more efficient agriculturist and move on, thus materially expediting the bringing of desirable agricultural land of the public domain into private ownership and cultivation by the small proprietor class.

Third. That the land laws be amended so as to permit the purchase by an individual of land from the public domain for agricultural purposes up to a maximum area of 100 hectares, thus affording opportunity for individual agricultural enterprise having from ₱10,000 to ₱50,000 of capital which can not find an adequate field in the extremely limited area of public land to which the individual purchaser is at present restricted. This will tend to increase the "middle class" in agriculture as distinguished from the nonproduction and urban groups.

Fourth. That the land laws be amended so as to discontinue the privilege of lease of public land for agricultural purpose except for grazing. It is a fundamental principle of intelligent management of agricultural land that if rented its capital value will continually be reduced unless safeguarded by a complex detailed contractual agreement regarding method of cropping, that harvested crops be fed to stock on the premises, etc. These safeguards must vary according to the local climatic, soil, and market conditions, something quite feasible as circumstances of contractual agreement between private land owners and renters or lessees, but obviously wholly impracticable for the government in the administration of the public domain. Thus neither the interest of the government as landed proprietor nor the public interest directly or indirectly is served by the

provision of existing law for the rental or lease of agricultural public land. Furthermore land leased from the public domain is not subject to taxation except on its improvements. The taxation of improvements on agricultural land is now becoming recognized as penalizing and therefore discouraging industry and consequently bad public policy. It is suggested that rather than the plan of a relatively high rate for purchase and an attractive low rental rate for leaseholds good public policy warrants the sale of agricultural public land at a low or merely nominal figure with adequate requirements as to areas to be brought under cultivation within stated periods and title of private ownership to be forfeited if these conditions be not complied with.

Fifth. That the land laws be amended so as to provide that all payments to the bureau of lands on account of surveys of the public domain, or at least the receipts accruing from homestead fees, be available and used exclusively for homestead surveys. It is to be noted in this connection that homestead fees paid by agricultural colonists could then be used to meet the expense of surveying additional colony homesteads.

Sixth. That the present land laws be extended and amplified to provide that in the case of lands which have been acquired from the public domain, whether by homestead, free patent, purchase, or otherwise, no mortgage or sale thereof shall be valid without prior approval in writing by the governor of the province within which the land is located if either of the parties thereto be unable to read and write. This is now in effect the law in the territory formerly the Moro Province, and is the only apparent method of preventing the simple-minded illiterate native, especially the Mohammedan and pagan, from being defrauded of the most valuable fruit of his labor and forced to return to the mountains or to become a vagabond in the lowlands.

(g) That the present law limiting the borrowing capacity of a provincial or municipal government to a certain percentage of the total real estate value as assessed for taxation be amended so as not to apply to the provincial and municipal governments in Mindanao-Sulu. In practice such restriction necessarily has the effect of depriving practically all provincial governments and all municipal governments, other than Zamboanga, of their only resource for financing important revenue-producing public works, such as municipal markets, water works, etc. This situation can not otherwise be remedied within less than 10 years, and presumably a considerably longer period, which must elapse before private title to public lands shall have been acquired and real estate assessed for taxation. There is urgent need in every one of these seven provinces for modern market construction on the customary market sites which have been used by the people from time immemorial, and which at present are neither possible of sanitation nor productive of more than a small fraction of the revenue which potentially exists. Municipal water supplies and other public works are also urgent. The borrowing capacity of these local governments is at present dependent upon revenues other than the land tax, and markets are typical of public works investment projects which from their net receipts would repay their investment cost within a few years. It is suggested that in this

new territory an adequate safeguard against incurring excessive indebtedness would be to require due investigation and report by the executive secretary, favorable recommendation of each project by the insular auditor, and approval by the Governor General before investment loans be made.

(h) That extraordinary financial aid from the insular treasury be provided for the construction of roads, bridges, trails, and small wharves, and the removal of obstructions in navigable rivers in amount equal to that otherwise provided by provincial governments from all sources.

(i) That existing law be amended so as to permit passengers traveling between the ports of Jolo, Zamboanga, and Manila to take passage between these coastwise points on foreign steamers making direct voyages. The law at present practically prohibits this. As a consequence a person in Zamboanga having business in Manila may not take a foreign steamer making the voyage from Zamboanga directly to Manila in 36 to 48 hours, but is required to wait for a coastwise vessel, none of which run directly between Zamboanga and Manila, but, stopping at various intermediate points, consume as much as 5 or 7 days. Furthermore, the coastwise vessels plying between Jolo, Zamboanga, and Manila are small, most of them of very old type, not designed for service in the Tropics, and passenger accommodations are not only inadequate, but almost unendurable to persons accustomed to modern ships. While the traffic between Manila and Cebu and Manila and Iloilo is apparently well provided with modern coastwise vessels, this is not true so far as concerns Zamboanga and Jolo. The volume of passenger and freight traffic between Jolo, Zamboanga, and Manila does not now and probably will not for some time to come warrant the maintenance of direct ship service. It is a serious disadvantage imposed upon business here, especially the passenger traffic, to prohibit the use of the large modern foreign ships which include the ports of Manila, Zamboanga, and Jolo on their regular schedules. While the protection of our coastwise shipping interests may warrant this prohibition in the case of traffic between Manila and Cebu and Manila and Iloilo, it operates as to Manila, Zamboanga, and Jolo seriously to restrict freedom and economy in trade and seriously to discourage the diversion of the commercial relations of this region from Singapore to Manila.

(j) That the registration of Chinese be again authorized to afford opportunity for legalization of residence in the Philippine Islands of those worthy Chinese individuals who, through lack of information or otherwise, without fault of their own, failed to take advantage of the opportunity to register which terminated April 29, 1904. Well-deserved relief would thus be afforded to a number of Chinese merchants and property owners who for many years have resided in Mindanao-Sulu, married, and reared children here. These men have in every way definitely identified themselves with the country. Inasmuch as this matter has been the subject of a separate report, reference is respectfully made to it for further discussion of the subject.

(k) Finally, and venturing perhaps beyond the limitations of recommendations which may properly be expected from the department governor, but basing the action upon a firm conviction as to

the best interests not only of the seven provinces here involved but also of all the provinces comprised in the Archipelago, that when the authority of the Philippine Legislature shall be extended to the department of Mindanao and Sulu representation be accorded these seven provinces upon the same basis as in the cases of the regularly organized provinces. Representation in the lower house would therefore be one for each province, or seven delegates. Viewed from every standpoint except that of population, this certainly could not be deemed excessive for due representation of approximately one-third of the entire Archipelago, and even from the point of view of population this representation would be the minimum under the rule of apportionment in force in the regularly organized provinces.

Very respectfully,

FRANK W. CARPENTER,
Governor.



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